

EVERYTHING 4 LESS



ENJOY YOUR BOOKS



PLEASE VISIT OUR STORE FOR EVEN MORE GREAT STUFF!

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THANKS AGAIN AND PLEASE TAKE THE TIME TO VISIT OUR STORE.

ATTENTION! EVERYTHING ON SALE NOW!!



HOT SALE!

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Tube Type	Fil. Volts	SW "R"	Load	SW "L"
1A3	1	B	100	X
Special Socket				
1A5	1	D	100	X
1A7	1	D	100	X
1AB5	1	F	100	
1AB6	1	D	100	
Special Socket				
1AC6	1	D	100	
Special Socket				
1AD2	1	H	100	
Special Socket 'A' 88A only				
1AE4	1	E	100	
Special Socket				
1AF4	1	E	100	
Special Socket				
1AF5	1	E	100	
"	"	G	"	"
Special Socket				
1AH5	1	E	100	
"	"	G	"	"
Special Socket				
1AJ2	1	H	100	
Special Socket 'A' 88A only				
1AJ4	1	E	100	
Special Socket				
1AM4	1	E	100	
Special Socket				
1AN5	1	E	100	
Special Socket				
1AQ5	1	D	100	
Special Socket				

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
1AR5	1	E	100	
"	"	G	"	"
Special Socket				
1AS5	1	E	100	
"	1	D	"	"
1AU2	1	E	100	
Special Socket				
1AU3	1	H	100	Y
1AX2	1	H	100	X
Special Socket 30% OK				
1B3	1	H	100	Y
1B7	1	H	100	X
1B8	1	H	100	X
"	"	D	"	"
"	"	E	"	"
1BC2	1	H	100	X
Special Socket				
1BH2	1	H	100	X
Special Socket				
1BK2	1	H	100	
30% OK				
Special Socket				
1BL2	1	H	100	
Special Socket 'A' 88A only				
1BQ2	1	H	100	X
1C3	1	D	100	
Special Socket				
1C5	1	D	90	X
1C7	1	D	100	X
1D5	1	H	100	X
1D7	1	D	100	X
1D8	1	H	100	X
"	"	D	"	"
"	"	E	"	"

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
1DN5	1	D	100	
"	"	E	"	"
Special Socket				
1DY2	1	B	10	Y
1DY4	1	B	10	Y
1E3	1	A	100	Z
1E4	1	D	100	X
1E5	1	H	100	X
1E7	1	C	100	X
"	"	D	"	"
1E8	1	B	100	
1F5	1	D	90	X
1F7	1	H	100	X
"	"	C	"	"
"	"	D	"	"
1G3*	1	H	100	Y
1G4	1	D	100	X
1G5	1	D	90	X
1G6	1	C	90	X
"	"	D	"	"
1H2	1	H	100	X
Special Socket				
1H4	1	D	90	X
1H5	1	H	100	X
"	"	D	"	"
1H6	1	C	100	X
"	"	D	"	"
"	"	F	"	"
1J3*	1	H	100	Y
1J5	1	D	90	X
1J6	1	C	90	X
"	"	D	"	"
1K3*	1	H	100	Y

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
1L4	1	E	100	
Special Socket				
1L6	1	D	100	
Special Socket				
1LA4	1	F	90	
1LA6	1	G	100	
1LB4	1	F	90	
1LB6	1	F	100	
1LC5	1	F	100	Y
1LC6	1	G	100	
1LD5	1	F	100	
"	"	G	"	"
1LE3	1	F	90	
1LE4	1	F	100	
1LF3	1	F	90	
1LF4	1	F	100	
1LG5	1	F	100	Y
1LH4	1	F	100	
"	"	G	"	"
1LN5	1	F	100	Y
1M3	1	A	100	
1N2	1	H	100	Y
1N5	1	H	100	X
1N6	1	F	100	X
"	"	D	"	"
1P5	1	H	100	X
1Q5	1	D	90	X
1R4	1	G	90	
1R5	1	D	100	
Special Socket				
1S2	1	H	100	X
Special Socket				
1S4	1	G	90	
Special Socket				

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
1S5	1	E	100	
"	"	G	"	
Special Socket				
1SA6	1	D	100	X
1SB6	1	F	100	X
"	"	D	"	"
1T4	1	E	100	
Special Socket				
1T5	1	D	90	X
1U4	1	E	100	
Special Socket				
1U5	1	E	100	
"	"	D	"	
Special Socket				
1U6	1	D	100	
Special Socket				
1V2	1	E	100	
Special Socket				
1W4	1	E	100	
Special Socket				
1X2	1	H	100	X
Special Socket				
1Z2	1	H	100	X
Special Socket				
2A4	3	G	5	
2AF4*	2	B	10	Y
2AH2	2	H	100	
Special Socket 'A' 88A only				
2AS2	2	H	100	
Special Socket 'A' 88A only				
2AS5	2	B	20	Z
2AV2	2	E	100	
Special Socket				
Tube Type	Fil. Volts	SW "R"	Load	SW "L"
2AZ2	2	E	100	
Special Socket				
2B3	2	H	100	Y
2B5	2	F	100	
"	"	G	"	
2BA2	2	A	100	
2BC5	2	A	10	
2BH5	2	A	90	
2BJ2	2	H	100	X
Special Socket				
2BN4	2	B	10	X
2BU2	2	H	60	
Special Socket 'A' 88A only				
2C4	2	G	90	
Special Socket				
2C22	6	H	15	
2C26	6	H	15	X
2C50	12	A	35	
"	"	C	"	
2C52	12	A	45	
"	"	C	"	
2CN3	2	H	100	
2CU5	2	B	10	Z
2CW4	2	A	90	
2CY5	2	A	10	X
2D21	6	A	5	X
2DS4	2	A	90	
2DX4	2	B	20	Y
2DY4	2	B	10	Y
2DZ4	2	B	10	Y
2E25	6	D	10	X
2E26	6	D	10	X
2E30	2	A	10	X
Tube Type	Fil. Volts	SW "R"	Load	SW "L"
2EA5	2	A	10	X
2EG4	2	A	90	
2EN5	2	B	10	
"	"	E	"	
2ER5	2	B	25	X
2ES5	2	B	25	X
2EV5	2	A	15	
2FH5	2	B	25	
2FQ5	2	B	10	X
2FS5	2	A	10	
2FV6	2	A	15	
2FY5	2	B	25	
2GK5	2	B	15	
2GU5	2	A	10	
2GW5	2	B	10	Y
2HA5	2	A	10	
2HK5	2	A	5	
2HM5	2	A	10	
2HQ5	2	A	10	
2HR8	2	E	25	
2J2	2	H	100	X
Special Socket				
2T4*	2	B	10	Y
2V3	2	H	100	X
2W3	2	C	100	Y
2X3	2	H	25	X
3A2	3	H	100	X
Special Socket				
3A3	3	H	100	X
No Short Test				
3A4	3	D	40	
3A5	3	G	50	Y
3AF4*	3	B	10	Y
Tube Type	Fil. Volts	SW "R"	Load	SW "L"
3AJ8	3	B	20	
"	"	E	"	
3AL5	3	B	10	
"	"	E	"	
3AT2	3	H	100	
Special Socket 'A' 88A only				
3AU6	3	A	10	
3AV6	3	A	35	
"	"	D	100	
"	"	G	"	
3AW2	3	H	100	
Special Socket 'A' 88A only				
3AW3	3	H	100	X
3B2	3	H	100	X
3B7	3	A	35	Z
"	"	D	10	"
3BA6	3	A	10	
3BC5	3	A	10	X
3BE6	3	A	10	
"	"	E	100	
3BF2	3	H	100	
Special Socket 'A' 88A only				
3BH2	3	H	10	Y
Magnoval - 88A Only				
3BL2	3	H	100	
Special Socket 'A' 88A only				
3BM2	3	H	50	
Special Socket 'A' 88A only				
3BN2	3	H	100	
Special Socket 'A' 88A only				
3NB4	3	B	10	X
3BN6	3	G	100	
3BS2	3	H	100	
Special Socket 'A' 88A Only				

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Tube Type	Fil. Volts	SW "R"	Load	SW "L"
3BT2	3	H	60	
Special Socket 'A' 88A only				
3BU8	3	C	15	
3BW2	3	H	100	
Special Comp 'A' 88A only				
3BX6	3	B	20	
3BY6	3	A	10	
3BY7	3	B	15	
3BZ6	3	A	10	
3CA3	3	H	100	X
3CB6	3	A	10	
3C2	3	H	100	Y
3C4	3	E	90	
Special Socket				
3C6	3	D	90	X
"	"	G	"	"
3CE5	3	A	10	X
3CF6	3	A	10	
3CN3	3	H	100	
No Short Test				
3CQ3	3	H	100	X
3CS6	3	A	10	
3CU3	3	H	100	Y
3CV5	3	H	100	X
3CX3	3	H	100	
3CY3	3	H	100	Y
3CY5	3	A	10	X
3CZ3	3	H	100	X
3D6	3	F	80	X
3DB3	3	H	100	X
No Short Test				
3DC3	3	H	100	Y

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
3DG4	3	D	10	
"	"	B	"	
Special Socket 88A only				
3DJ3	3	H	100	Z
3DK6	3	A	10	
3DT6	3	A	10	
3DX4	3	B	20	Y
3DY4	3	B	10	Y
3DZ4	3	B	10	Y
3E5	3	E	90	
3E6	3	F	80	Y
3EA5	3	A	10	X
3EH7	3	B	15	Z
3EJ7	3	B	15	Z
3ER5	3	B	25	X
3ES5	3	B	25	X
3EV5	3	A	10	
3FH5	3	B	25	
3FQ5	3	B	10	X
3FS5	3	A	10	
3FY5	3	B	25	
3GH8	6	B	10	
"	"	E	"	
3GK5	3	B	10	
3GS8	3	C	15	
3GU5	3	A	15	
3GW5	3	B	10	Y
3HA5	3	A	10	
3HG8	3	B	15	
"	3	D	15	
3HK5	3	A	5	
3HM5	3	A	10	
3HM6	3	B	10	
3HQ5	3	A	5	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
3HS8	3	C	10	
3HT6	3	B	10	
3JC6	3	B	10	
3JD6	3	B	10	
3JH6	3	A	10	
3KF8	6	C	20	
3KT6	3	B	25	
3LE4	3	F	80	X
3LF4	3	F	80	X
3Q4	3	G	80	
Special Socket				
3Q5	3	D	35	X
3S4	3	G	80	
Special Socket				
3V4	3	E	80	
Special Socket				
3W4	3	G	90	
Special Socket				
3Z4	3	G	90	
Special Socket				
4AF4	4	B	10	Y
4AU6	4	A	10	
4AV6	4	A	35	
"	"	D	100	
"	"	G	"	
4BA6	4	A	10	
4BC5	4	A	10	X
4BC8	4	B	10	
"	"	C	"	
4BE6	4	A	10	
"	"	E	100	
4BK7	4	B	10	
"	"	C	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
4BL8	4	B	20	
"	4	E	20	
4BN4*	4	B	10	X
4BN6	4	G	100	
4BQ7	4	B	15	
"	"	C	"	
4BS8	4	B	15	
"	"	C	"	
4BU8	4	C	15	
4BX8	4	B	15	
"	"	C	"	
4BZ6	4	A	10	
4BZ7	4	B	15	
"	"	C	"	
4BZ8	4	B	15	
"	"	C	"	
4CB6	4	A	10	
4CE5	4	A	10	X
4CM4	4	B	15	
"	4	F	15	
4CM6	4	G	15	Y
4CS6	4	A	10	
4CX7	4	B	15	X
"	"	C	"	"
4CY5	4	A	10	X
4DE6	4	A	10	
4DK6	4	A	10	
4DT6	4	A	10	
4EH7	4	B	15	Z
4EJ7	4	B	15	Z
4ES8	4	B	15	
"	"	C	"	
4EW6	4	A	10	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
4FS7	4	B	10	
"	"	D	"	
4GK5	4	B	10	
4GJ7	4	B	15	
"	"	E	"	
4GM6	4	A	10	
4GS7	4	A	10	
"	"	E	"	
4GS8	4	C	15	Y
4GW5	4	B	10	
4GX7	4	B	10	
"	4	E	10	
4GZ5	4	B	5	Z
4HA5	4	A	10	
4HA7	4	A	35	
"	4	J	25	
4HC7	4	A	25	
"	"	J	"	
4HG8	4	B	15	
"	"	D	"	
4HK5	4	A	5	
4HM5	4	A	10	
4HM6	4	B	10	
4HQ5	4	A	10	
4HR8	4	E	25	
4HS8	4	C	10	
4HT6	4	B	10	
4JC6	4	B	10	
4JD6	4	B	10	
4JH6	4	A	10	
4JK6	4	A	5	
4JL6	4	A	5	
4KE8	4	B	10	
"	"	E	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
4KF8	6	C	20	
4KN8	4	B	15	
"	"	C	"	
4KT6	4	B	25	
4LJ8	4	A	10	
"	"	E	5	
4LU6	4	A	15	
5A6	5	C	15	X
5AF4	5	B	10	Y
5AM8	5	B	10	
"	"	F	"	
5AN8	5	B	10	
"	"	F	"	
5AQ4	5	A	25	Y
5AQ5	5	A	25	X
5AR4	5	C	10	Y
"	5	F	10	Y
5AS4	5	C	30	Y
"	"	F	"	"
5AS8	5	B	15	
"	"	D	"	
5AT4	5	C	15	Y
"	"	F	"	"
5AT8	5	A	15	
"	"	E	"	
5AU4	5	C	35	Y
"	"	F	"	"
5AV8	5	B	15	
"	"	D	"	
5AW4	5	C	30	Y
"	"	F	"	"
5AX4	5	C	50	Y
"	"	F	"	"

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
5AZ4	5	C	30	
"	5	F	30	
5B8	5	B	10	
"	"	D	"	
5BC3	5	D	20	Z
"	"	E	"	"
Special Socket				
5BE8	5	A	10	
"	"	E	"	
5BK7	5	B	10	
"	"	C	"	
5BM8	5	A	30	
"	"	G	10	
5BQ5	5	E	5	
Special Socket				
5BQ7	5	B	15	
"	"	C	"	
5BR8	5	A	10	
"	"	E	"	
5BS8	5	B	15	
"	"	C	"	
5BT8	5	F	10	
"	"	A	"	
"	"	B	"	
5BW8	5	D	10	
"	"	A	100	
"	"	G	"	
5BZ7	5	B	15	
"	"	C	"	
5CG4	5	C	20	Y
"	"	F	"	"
5CG8	5	A	10	Z
"	"	E	"	"

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
5CL8	5	A	10	
"	"	E	"	
5CM6	5	G	10	Y
5CM8	5	B	10	
"	"	E	30	
5CQ8	5	B	10	
"	"	E	"	
5CR8	5	B	15	
"	"	F	"	
5CU4	5	C	35	Y
"	"	F	"	"
5CZ5	5	D	30	Z
5DB4	5	C	35	Y
"	"	F	"	"
5DH8	5	A	10	
"	"	E	"	
5DJ4	5	D	30	X
"	"	E	"	"
Special Socket 88A only				
5DN4	5	D	30	X
"	"	E	"	"
Special Socket 88A only				
5EA8	5	B	10	
"	"	E	"	
5EH8	5	B	10	
"	"	C	"	
5ES8	5	B	15	
"	"	C	"	
5EU8	5	B	10	
"	"	C	"	
5EW6	5	A	10	
5FG7	5	A	10	
"	"	E	"	

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Tube Type	Fil. Volts	SW "R"	Load	SW "L"
5FV8	5	A	10	
"	"	E	"	
5GJ7	5	B	15	
"	"	E	"	
5GH8	5	B	10	
"	"	E	"	
5GM6	5	A	10	
5GS7	5	A	10	
"	"	E	"	
5GX6	5	A	10	
5GX7	5	B	15	
"	"	E	15	
5HA7	5	A	25	
"	"	J	25	
5HB7	5	B	10	
"	5	E	10	
5HC7	5	A	25	
"	"	J	"	
5HG8	5	B	15	
"	"	D	"	
5HZ6	5	A	10	
5J6	5	D	10	
"	"	G	"	
5JK6	5	A	5	
5JL6	5	A	5	
5JV8	5	B	20	
"	5	C	20	
5KD8	5	B	10	
"	5	E	10	
5KE8	5	B	10	
"	"	E	"	
5KU8	5	C	15	
"	"	B	100	
"	"	G	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
5KV8	5	B	30	
"	"	C	10	
5KZ8	5	B	10	
"	"	E	30	
5LJ8	5	A	20	
"	"	E	5	
5LT8	5	D	10	
"	"	E	"	
"	"	F	"	
5MB8	5	A	10	
"	"	E	"	
5MQ8	5	B	20	
"	"	E	"	
5R4	5	C	50	Y
"	"	F	"	"
5T4	5	C	30	Y
"	"	F	"	"
5T8	5	F	40	
"	"	B	15	
"	"	A	"	
"	"	D	"	
5U4	5	C	20	Y
"	"	F	"	"
5U8	5	B	10	
"	"	E	"	
5U9	5	G	10	
"	"	H	"	
"	Decal Tube			
5V3	5	C	30	Y
"	"	F	"	"
5V4	5	C	15	Y
"	"	F	"	"
5V6	5	D	15	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
5V9	5	G	10	
"	"	F	"	
"	Decal Tube			
5W4	5	C	25	Y
"	"	F	"	"
5X4	5	D	30	
"	"	G	"	
5X8	5	B	10	
"	"	C	"	
5X9	5	G	10	
"	"	H	"	
"	Decal Tube			
5Y3	5	C	85	Y
"	"	F	"	"
5Y4	5	D	90	
"	"	G	"	
5Z4	5	C	15	Y
"	"	F	"	"
6A8	6	D	35	X
6AB4	6	D	20	
6AB7	6	C	20	X
6AB8	6	B	15	
"	"	E	"	
6AB9	6	E	20	
"	"	G	"	
"	Decal Tube			
6AC5	6	D	25	X
6AC6	6	D	25	X
6AC7	6	C	15	X
6AC9	6	B	10	
"	"	J	"	
6AC10	6	A	10	
"	"	G	"	
"	"	J	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6AC11	6	C	25	
"	"	F	"	
"	"	H	10	
6AD5	6	D	35	X
6AD7	6	A	40	X
"	"	D	"	"
6AD8	6	B	35	
"	"	C	100	
"	"	F	"	
6AD10	6	C	10	
"	"	H	"	
6AE5	6	D	35	X
6AE6	6	E	25	X
6AE7	6	C	35	X
"	"	F	"	"
6AE8	6	B	20	
"	"	C	"	
6AF3	6	B	20	X
6AF4*	6	B	10	Y
6AF5	6	D	25	X
6AF7	6	C	10	X
6AF9	6	A	10	
"	"	F	"	
"	Decal Tube			
6AF10	6	C	20	
"	"	J	"	
6AF11	6	A	15	
"	"	C	"	
"	"	F	"	
6AG5	6	A	10	
6AG6	6	F	30	X
6AG7	6	C	5	X
6AG9	6	A	10	
"	"	E	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6AG10	6	A	20	
6AG11	6	C	10	
"	"	E	"	
"	"	H	"	
"	"	K	"	
6AH4	6	A	10	Y
6AH5	6	F	40	X
6AH6	6	A	10	
6AH7	6	A	30	
"	"	D	"	
6AH9	6	B	10	X
"	"	F	"	
6AJ5	6	A	10	X
6AJ7	6	C	15	X
6AJ8	6	B	20	
"	"	E	"	
6AJ9	6	G	10	
"	"	H	20	
Decal Tube				
6AK5	6	A	10	X
6AK6	6	A	10	
6AK7	6	C	5	X
6AK8	6	F	40	
"	"	B	15	
"	"	A	"	
"	"	D	"	
6AK9	6	C	20	
"	"	H	"	
"	"	K	"	
6AK10	6	A	25	
"	"	G	"	
"	"	J	"	
6AL3	6	B	20	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6AL5	6	B	10	
"	"	E	"	
6AL6	6	D	10	X
6AL9	6	A	10	
"	"	E	"	
6AL11	6	C	15	
"	"	H	"	
6AM5	6	A	10	
6AM6	6	A	10	
6AM8	6	B	10	
"	"	F	"	
6AN4*	6	B	10	Y
6AN5	6	A	25	X
6AN6	6	B	100	
"	"	D	"	
"	"	G	"	
Special Socket				
6AN7	6	B	20	
"	"	E	"	
6AN8	6	B	10	
"	"	F	"	
6AQ4*	6	A	25	Y
6AQ5	6	A	25	X
6AQ6	6	A	40	
"	"	D	100	
"	"	G	"	
6AQ7	6	C	35	
"	"	A	100	
"	"	G	"	
6AQ8	6	B	25	
"	"	C	"	
6AR5	6	A	25	
6AR8	6	D	30	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6AR11	6	E	5	
"	"	K	"	
6AS5	6	B	25	Z
6AS6	6	A	20	
6AS7	6	A	20	
"	"	C	"	
6AS8	6	B	10	
"	"	D	"	
6AS11	6	C	20	
"	"	F	10	
"	"	A	5	
6AT6	6	A	35	
"	"	D	100	
"	"	G	100	
6AT7	6	B	10	
"	"	C	"	
6AT8	6	A	25	
"	"	E	10	
6AU4	6	D	5	
6AU5	6	A	10	X
6AU6	6	A	10	
6AU7	6	B	20	X
"	"	C	"	"
6AU8	6	B	20	
"	"	C	10	
6AV4	6	A	50	
"	"	D	"	
6AV5	6	A	10	X
6AV6	6	A	35	
"	"	D	100	
"	"	G	"	
6AV8	6	B	15	
"	"	D	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6AV11	6	A	20	
"	"	G	"	
"	"	J	"	
6AW7	6	B	35	
"	"	C	100	
"	"	G	"	
6AW8	6	B	25	
"	"	C	10	
6AX3	6	K	10	Y
6AX4	6	D	10	
6AX5	6	D	50	X
"	"	G	"	"
6AX6	6	D	15	X
"	"	G	"	"
6AX7	6	B	20	X
"	"	C	20	"
6AX8	6	B	15	
"	"	E	"	
6AY3	6	B	35	X
6AY11	6	C	15	
"	"	E	"	
"	"	H	"	
"	"	K	"	
6AZ8	6	D	10	
"	"	E	"	
6B3	6	B	10	
Special Socket				
6B4	6	D	20	X
6B6G	6	H	35	X
"	"	D	100	"
"	"	C	"	"
6B8	6	H	35	X
"	"	D	100	"
"	"	C	"	"

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Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6B10	6	C	20	
"	"	E	"	
"	"	H	"	
"	"	K	"	
6BA3	6	B	5	X
6BA6	6	A	10	
6BA7	6	B	10	
6BA8	6	B	20	
"	"	C	"	
6BA11	6	D	20	
"	"	J	"	
[6BC4*	6	D	10	
[Merit Test Only - Read to Left				
6BC5	6	A	10	X
6BC6	6	A	15	
6BC7	6	B	10	
"	"	D	"	
"	"	F	"	
6BC8	6	B	10	
"	"	C	"	
6BD4	6	D	100	X
6BD5	6	A	10	X
6BD6	6	A	25	
6BD7	6	B	35	
"	"	D	100	
"	"	F	"	
6BD11	6	C	15	
"	"	F	10	
"	"	A	"	
6BE3	6	K	5	Y
6BE6	6	A	20	
"	"	E	100	
6BE7	6	C	20	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6BE8	6	A	10	
"	"	E	"	
6BF5	6	A	5	X
6BF6	6	A	50	
"	"	D	100	
"	"	G	"	
6BF8	6	A	20	
"	"	B	"	
"	"	C	"	
"	"	E	"	
"	"	F	"	
"	"	G	"	
6BF11	6	C	15	
"	"	H	5	
6BG6	6	D	15	X
6BH3	6	B	10	X
6BH5	6	B	25	
6BH6	6	A	10	
6BH8	6	B	15	
"	"	C	"	
6BH11	6	D	10	
"	"	F	"	
"	"	H	"	
6BJ3	6	K	5	Y
6BJ5	6	A	15	
6BJ6	6	A	15	
6BJ7	6	B	15	
"	"	D	"	
"	"	F	"	
6BJ8	6	A	15	
"	"	D	"	
"	"	F	"	
6BJ11	6	A	10	
"	"	F	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6BK4	6	D	90	X
6BK5	6	C	10	Z
6BK6	6	A	30	
"	"	D	100	
"	"	G	"	
6BK7	6	B	10	
"	"	C	"	
6BK8	6	E	15	
6BK11	6	A	30	
"	"	G	"	
"	"	J	"	
6BL4	6	D	25	
6BL7	6	A	10	
"	"	C	"	
6BL8	6	B	20	
"	"	E	"	
6BM5	6	A	15	X
6BM8	6	A	30	
"	"	G	10	
6BM11	6	A	10	
"	"	F	"	
6BN4	6	B	10	X
6BN5	6	E	10	
Special Socket				
6BN6	6	G	100	
6BN7	6	B	20	
"	"	C	"	
6BN8	6	F	10	
"	"	A	"	
"	"	D	"	
6BN11	6	C	5	
"	"	G	"	
[6BQ5	6	E	5	
Special Socket				

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6BQ6	6	D	10	X
6BQ7	6	B	15	
"	"	C	"	
6BQ11	6	E	10	
"	"	K	"	
6BR3	6	B	10	X
6BR5	6	A	30	
6BR7	6	B	20	
6BR8	6	A	35	
"	"	E	"	
6BS3	6	B	5	X
6BS5	6	E	10	
Special Socket				
6BS7	6	H	20	
6BS8	6	B	15	
"	"	C	"	
6BT4	6	B	50	
"	"	D	"	
6BT6	6	A	35	
"	"	D	100	
"	"	G	"	
6BT8	6	F	25	
"	"	A	100	
"	"	B	"	
6BT11	6	A	10	
"	"	C	"	
"	"	E	"	
6BU4	6	D	85	X
6BU5*	6	C	85	
6BU6	6	A	40	
"	"	D	100	
"	"	G	"	
6BU8	6	C	15	

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Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6BU11	6	D	10	
"	"	F	"	
"	"	H	"	
6BV7	6	F	10	
"	"	A	100	
"	"	D	"	
6BV8	6	B	15	
"	"	D	"	
"	"	E	"	
6BV11	6	F	10	
"	"	G	"	
6BW3	6	K	15	Y
6BW4	6	A	30	
"	"	C	"	
6BW5	6	D	10	X
6BW6	6	A	15	
Special Socket				
6BW7	6	B	15	Z
6BW8	6	D	15	
"	"	A	"	
"	"	G	"	
6BW11	6	A	10	✓
"	"	C	"	
6BX4	6	A	35	
"	"	D	"	
6BX6	6	B	20	Z
6BX7	6	A	10	
"	"	C	"	
6BX8	6	B	25	
"	"	C	"	
6BY5	6	C	25	X
"	"	D	"	"
6BY6	6	A	10	
6BY7	6	B	15	Z

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6BY8	6	A	20	
"	"	D	"	
6BY11	6	C	20	
"	"	H	"	
6BZ3	6	K	5	Y
6BZ6	6	A	10	
6BZ7	6	B	15	
"	"	C	"	
6BZ8	6	B	15	
"	"	C	"	
6C4	6	D	25	Z
6C5	6	D	75	X
6C8	6	H	30	X
"	"	D	"	"
6C9	6	A	10	
"	"	C	"	
6C10	6	A	25	
"	"	G	"	
"	"	J	"	
6CA4	6	A	10	
"	"	C	"	
6CA5	6	B	15	Z
6CA7	6	D	10	X
6CA11	6	C	20	
"	"	F	"	
"	"	H	25	
6CB5	6	C	5	Y
Check Merit Only				
6CB6	6	A	10	
6CB11	6	C	20	
"	"	A	10	
6CD3	6	K	10	Y
6CD6	6	D	5	X
6CE3	6	K	10	Y

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6CE5	6	A	10	X
6CF3	6	K	10	Y
6CF6	6	A	10	
6CF8	6	E	10	
6CG3	6	K	10	Y
6CG6	6	A	25	
6CG7	6	B	30	
"	"	C	"	
6CG8	6	A	10	Z
"	"	E	"	"
6CH3	6	B	10	X
6CH6	6	B	15	
6CH7	6	B	10	X
"	"	C	"	"
6CH8	6	C	10	
6CJ3	6	B	10	X
6CJ5	6	D	25	
6CJ6	6	B	20	
6CK3	6	B	10	X
6CK4	6	A	10	Z
6CK6	6	B	10	
6CL3	6	B	10	X
6CL5*	6	C	10	Y
Merit Test Only				
6CL6*	6	B	10	X
6CL8	6	A	10	
"	"	E	"	
6CM3	6	B	35	X
6CM4	6	B	15	Y
"	"	F	"	"
6CM5	6	D	10	X
6CM6	6	G	10	Y
6CM7	6	C	35	
"	"	F	20	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6CM8	6	B	10	
"	"	E	30	
6CN6	6	D	15	X
6CN7	6	C	35	X
"	"	A	"	"
"	"	B	"	"
6CQ4	6	D	10	
6CQ6	6	A	15	
6CQ8	6	B	10	
"	"	E	"	
6CR5	6	F	25	Z
6CR6	6	E	25	
"	"	B	100	
6CR8	6	A	15	
"	"	E	"	
6CS5*	6	D	20	Z
6CS6	6	A	10	
6CS7	6	C	30	
"	"	G	15	
6CS8	6	B	15	
"	"	E	"	
6CT3	6	B	10	Y
6CT7	6	A	100	
"	"	D	"	
6CU5	6	B	10	Z
6CU6	6	D	10	X
6CU7	6	D	50	
"	"	G	100	
6CU8	6	C	20	
"	"	F	"	
6CV7	6	A	50	
"	"	D	100	
"	"	F	"	
6CW4	6	A	90	

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Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6CW5	6	E	5	
Special Socket				
6CW7	6	B	10	
"	"	D	"	
6CX7	6	B	10	X
"	"	C	"	"
6CX8	6	B	10	
"	"	C	"	
6CY5	6	A	10	X
6CY7	6	B	10	Z
"	"	C	40	"
6CZ5	6	D	30	Z
6D4	6	A	10	
6D5	6	D	10	
6D8	6	D	30	X
6D10	6	A	10	
"	"	"	"	
"	"	J	"	
6DA4	6	D	5	
6DA5	6	A	30	
6DA6	6	B	25	
6DA7	6	G	20	
"	"	C	40	
6DB5	6	D	30	Z
6DB6	6	A	15	
6DC6	6	A	10	
6DC8	6	B	15	
"	"	C	100	
"	"	F	"	
6DE4	6	D	5	
6DE6	6	A	10	
6DE7	6	B	20	Z
"	"	C	60	"

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6DF12	6	B	20	
"	"	C	100	
"	"	F	"	
6DG6	6	D	25	X
6DG7	6	B	20	
6DH8	6	A	10	
"	"	E	"	
6DJ6	6	D	10	X
6DJ8	6	B	10	
"	"	C	"	
6DK6	6	A	10	
6DL4	6	B	15	Y
"	"	F	"	"
6DL5	6	A	10	X
6DM4	6	D	5	
6DM8	6	C	25	
"	"	D	"	
"	"	F	"	
6DN3	6	D	10	
6DN6	6	D	5	X
6DN7	6	A	10	
"	"	C	40	
6DQ4	6	D	10	
6DQ5*	6	A	10	Y
Merit Test Only				
6DQ6	6	D	5	X
6DR4	6	D	20	
6DR6	6	B	25	
6DR7	6	B	10	Z
"	"	C	50	"
6DR8	6	B	25	
"	"	C	100	
"	"	F	"	
6DS4	6	A	90	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6DS5	6	A	30	X
6DS8	6	B	15	
"	"	E	"	
6DT4	6	D	10	
6DT5	6	D	10	Z
6DT6	6	A	10	
6DT8	6	B	10	
"	"	C	"	
6DW4	6	B	5	X
6DW5	6	D	10	Z
6DX8	6	A	30	
"	"	F	10	
6DY4	6	B	10	Y
6DY7	6	A	15	X
"	"	D	"	"
6DZ4	6	B	10	Y
6DZ7	6	A	20	X
"	"	D	"	"
6DZ8	6	A	30	
"	"	G	10	
6E8	6	D	40	X
"	"	H	"	"
6EA4	6	F	100	
6EA5	6	A	10	X
6EA7	6	A	15	
"	"	C	75	
6EA8	6	B	10	
"	"	E	"	
6EB5	6	B	15	
"	"	E	"	
6EB8	6	B	25	
"	"	C	10	
6EC7	6	B	15	Z

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6ED4	6	D	100	
Magnoval - 88A Only				
6ED7	6	B	15	Z
6EF4	6	F	100	
6EF6	6	D	15	X
6EH4	6	F	100	
6EH5	6	B	10	Z
6EH7	6	B	15	Z
6EH8	6	B	10	Y
"	"	C	"	"
6EJ4	6	F	100	
6EJ7	6	B	5	Z
6EL4	6	D	100	X
6EL7	6	B	10	
6EM5	6	D	10	Z
6EM7	6	A	15	
"	"	C	75	
6EQ7	6	B	10	
"	"	F	100	
6ER5	6	B	25	X
6ES5	6	B	25	X
6ES6	6	A	10	
6ES8	6	B	15	
"	"	C	"	
6ET6	6	A	10	
6ET7	6	C	10	
"	"	B	100	
"	"	G	"	
6EU8	6	B	10	
"	"	C	"	
6EV5	6	A	15	
6EV7	6	B	10	
"	"	C	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6EV8	6	A	20	
"	"	E	20	
6EW6	6	A	10	
6EW7	6	B	50	Z
"	"	C	"	"
6EX6	6	D	5	X
6EY6	6	D	10	X
6EZ5	6	D	10	X
6EZ8	6	B	15	
"	"	C	"	
"	"	E	"	
6F5	6	H	30	X
6F6	6	D	35	X
6F8	6	H	50	X
"	"	D	"	"
6FA7	6	C	20	
"	"	G	100	
6FB8	6	A	100	
"	"	B	"	
"	"	C	"	
"	"	D	"	
"	"	F	"	
"	"	G	"	
6FD6	6	A	10	Z
6FD7	6	C	50	Z
"	"	B	5	
6FD12	6	B	15	
"	"	C	100	
"	"	F	"	
6FE5	6	D	10	X
6FG5	6	A	10	X
6FG6	6	A	25	
6FG7	6	A	10	
"	"	E	"	
Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6FH5	"	B	20	
6FH6	6	D	10	X
6FH8	6	B	20	
"	"	D	"	
6FJ7	6	K	70	
"	"	C	10	
6FM7	6	E	85	
"	"	K	25	
6FM8	6	F	45	
"	"	B	10	
"	"	D	"	
6FN5	6	C	5	Y
6FQ5	6	B	10	X
6FQ7	6	B	25	
"	"	C	"	
6FR7	6	C	50	
"	"	B	5	
6FS5	6	A	10	
6FV6	6	A	10	
6FV7	6	B	15	X
"	"	C	"	"
6FV8	6	A	10	
"	"	E	"	
6FW5	6	A	15	X
6FW8	6	B	20	
"	"	C	"	
6FX4	6	A	50	
"	"	D	"	
6FY5	6	B	25	
6FY7	6	K	35	
"	"	C	5	
6FY8	6	A	10	
"	"	G	"	
6G6	6	D	35	X
Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6G7	6	H	30	X
6G11	6	C	20	
"	"	H	10	
6GA7	6	A	5	
"	"	D	"	
6GA8	6	B	20	
"	"	C	"	
6GB3	6	E	10	X
6GB5	6	E	10	
Magnoval - 88A Only				
6GB6	6	E	10	X
6GB7	6	D	10	X
6GC5	6	D	5	Z
6GC6	6	D	5	X
6GC8	6	B	10	
"	"	E	10	
6GD7	6	A	5	
"	"	E	"	
6GE5	6	B	90	
6GE8	6	F	"	
"	"	G	"	
6GF5	6	B	90	
6GF7	6	C	40	
"	"	E	10	
6GH8	6	B	10	
"	"	E	"	
6GJ5	6	D	5	X
6GJ7	6	B	15	
"	"	E	"	
6GJ8	6	B	10	
"	"	E	"	
6GK5	6	B	15	
6GK6	6	B	10	
6GK7	6	B	10	Z
Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6GL7	6	C	50	
"	"	A	5	
6GM5	6	D	10	
6GM6	6	A	10	
6GM8	6	B	20	
"	"	C	"	
6GN6	6	A	35	
"	"	E	"	
6GN8	6	B	10	
"	"	C	"	
6GQ7	6	H	50	
"	"	D	"	
6GS7	6	E	20	Z
6GS8	6	C	20	
6GT5	6	D	5	X
6GT8	6	B	10	
"	"	D	"	
"	"	F	35	
6GU5	6	A	10	
6GU7	6	B	25	
"	"	C	"	
6GU8	6	B	10	
"	"	E	"	
6GV5	6	J	0	X
6GV7	6	C	20	
"	"	E	"	
6GV8	6	B	30	
"	"	E	10	
6GW5	6	B	10	Y
6GW6	6	D	5	X
6GW8	6	A	20	
"	"	F	10	
6GX6	6	A	10	

* * SEE TUBE MANUAL FOR INTERCONNECTED PINS

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6GX7	6	B	10	
"	"	E	"	
6GY5	6	J	0	X
6GY6	5	A	20	
6GY8	6	A	20	
"	"	G	"	
"	"	D	100	
6GZ5	6	B	5	Z
6H4	6	C	75	X
6H6	6	G	45	X
"	"	D	"	"
6H7	6	D	40	X
"	"	H	"	"
6H8	6	H	40	X
"	"	C	"	"
"	"	D	"	"
6HA5	6	A	10	
6HA6	6	A	10	
6HB5	6	B	90	
6HB6	6	B	10	
6HB7	6	B	10	
"	"	E	"	
6HC8	6	A	15	
"	"	G	"	
6HD5	6	J	90	X
6HD7	6	B	25	
"	"	E	"	
6HE5	6	A	20	Y
Read to Left - Merit Test Only				
6HE7	6	B	10	Z
"	"	J	"	"
Special Socket 'B' 88A only				
6HF5	6	J	0	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6HF8	6	B	15	
"	"	C	"	
6HG5	6	A	25	X
6HG8	6	B	15	
"	"	D	"	
6HJ5	6	J	90	X
6HJ7	6	B	25	
"	"	E	"	
6HJ8	6	B	10	
"	"	F	"	
6HK5	6	A		
6HK8	6	B	15	
"	"	C	"	
6HL5	6	B	10	
6HL8	6	B	10	
"	"	E	"	
6HM5	6	A	10	
6HM6	6	B	10	
6HQ5	6	A	10	
6HQ6	6	A	10	Y
6HR5	6	A	10	X
6HR6	6	A	10	
6HS5	6	B	25	
Special Socket 'B' 88A only				
6HS6	6	A	15	
6HS8	6	C	10	
6HT6	6	B	10	
6HU6	6	A	25	
6HU8	6	B	10	
"	"	D	"	
6HV5	6	B	10	
Special Comp 'B' 88A only				
6HW8	6	D	15	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6HZ6	6	A	10	
6HZ8	6	B	15	
"	"	C	"	
6JA*	6	B	10	
Merit Test Only - Read to Left				
6J5	6	D	25	X
6J6	6	D	10	
"	"	G	"	
6J7	6	H	35	X
6J8	6	H	20	X
"	"	D	100	"
6J9	6	B	5	
"	"	C	"	
"	"	E	"	
6J10	6	A	5	
"	"	F	100	
6J11	6	A	5	
"	"	E	"	
6JA8	6	B	50	
"	"	C	10	
6JB5	6	A	20	Y
Read to Left Merit Test only				
6JB6	6	D	5	X
6JB8	6	B	35	
"	"	E	35	
6JC6	6	B	10	
6JC8	6	B	15	
"	"	F	"	
6JD6	6	B	10	
6JE6	6	D	5	X
6JG6	6	E	10	
6JH6	6	A	10	
6JH8	6	D	10	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6JE8	6	B	15	
"	"	C	"	
6JF6	6	D	10	X
6JK6	6	A	5	
6JK8	6	B	10	
"	"	C	"	
6JL6	"	A	5	
6JL8	6	B	20	
"	"	C	10	
6JM6	6	E	10	
6JN6	6	A	10	
6JN8	6	A	10	
"	6	E	"	
6JQ6	6	A	100	
6JR6	6	E	10	
6JS6	6	E	10	
If no reading				
6JT6	6	J	10	X
6JT8	6	E	10	
"	6	B	25	
"	6	C	10	
6JU6	6	D	10	X
6JU8	6	A	40	
"	"	C	"	
6JV8	6	B	20	
"	"	C	"	
6JW6	6	B	20	
6JW8	6	B	10	
"	"	E	"	
6JX8	6	B	10	
"	"	E	"	
6JY8	6	B	10	
"	"	C	"	
6JZ6	6	J	10	Y

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6JZ8	6	K	50	Z
"	"	F	10	"
6K5	6	H	35	X
6K6	6	D	70	X
6K7	6	H	75	X
6K8	6	D	10	X
6K11	6	A	25	
"	"	G	"	
"	"	J	"	
6KA8	6	B	15	
"	"	D	5	
6KD6	6	J	10	X
6KD8	6	B	10	
"	"	E	"	
6KE6	6	J	10	X
6KE8	6	B	10	
"	"	E	"	
6KG6	6	E	10	Y
Magneval - 88A Only				
6KF8	6	C	20	
6KH8	6	B	10	
"	"	D	"	
6KL8	6	B	10	
"	"	F	100	
6KM6	6	D	10	X
6KM8	6	G	100	
"	"	C	10	
6KN6	6	J	10	X
6KN8	6	B	15	
"	"	C	"	
6KQ6	6	E	10	Y
Magneval - 88A Only				
6KR8	6	B	5	
"	"	C	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6KS6	6	G	100	
6KS8	6	B	10	
"	"	C	"	
6KT6	6	B	25	
6KT8	6	C	5	X
"	"	B	"	Y
6KU8	6	C	15	
"	"	B	100	
"	"	G	"	
6KV6	6	E	20	
6KV8	6	B	30	
"	"	C	10	
6KW6	6	E	10	Y
Magneval - 88A Only				
6KX6	6	A	100	
"	"	H	"	
6KY6	6	B	10	
6KY8	6	C	50	
"	"	E	10	
6KZ8	6	B	5	
"	"	E	"	
6L5	6	D	25	X
6L6	6	D	10	X
6L7	6	H	35	X
6LB6	6	J	10	X
6LB8	6	B	30	
"	"	C	5	
6LC6	6	D	100	
6LC8	6	B	15	
"	"	D	5	
6LD6	6	G	10	Y
6LE8	6	E	20	
6LF6	6	J	10	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6LF8	6	B	5	
"	"	C	10	
6LG6	6	E	10	
6LH6	6	D	100	
6LJ6	6	A	5	Z
No Short Test				
6LJ8	6	A	10	
"	"	E	10	
6LM8	6	B	10	
"	"	E	20	
6LN8	6	B	10	
"	"	E	20	
6LQ6	6	F	10	X
6LQ8	6	B	10	
"	"	C	"	
6LR6	6	J	10	X
6LR8	6	C	10	
"	"	E	"	
6LT8	6	D	10	
"	"	E	"	
"	"	F	"	
6LU8	6	F	5	Z
"	"	K	"	"
6LX8	6	B	10	
"	"	E	20	
6LY8	6	B	15	
"	"	C	"	
6M5	6	B	15	
6M6	6	D	15	X
6M7	6	H	25	X
6M8	6	D	35	X
"	"	H	"	"
"	"	E	100	"

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6M11	6	B	5	
"	"	E	"	
"	"	H	"	
6MB8	6	A	10	
"	"	E	"	
6MD8	6	C	20	
"	"	D	"	
"	"	F	"	
6ME8	6	D	20	
6MF8	6	F	10	
"	"	K	"	
6MG8	6	B	10	
"	"	E	"	
6MJ8	6	A	10	
"	"	H	"	
"	"	K	"	
6MK8	6	C	10	
6ML8	6	D	20	
"	"	E	"	
"	"	F	"	
6MN8	6	A	25	
"	"	H	"	
"	"	K	"	
6MQ8	6	B	20	
"	"	E	"	
6MU8	6	B	20	
"	"	E	"	
6MV8	6	B	10	X
"	"	C	"	"
6N3	6	E	10	
6N4*	6	A	35	X
6N6G	6	D	20	X
6N7	6	C	35	X
"	"	D	"	"

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Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6N8	6	B	25	
"	"	C	100	
"	"	F	"	
6P5	6	D	30	X
6P8	6	H	75	X
"	"	D	100	"
[6Q4	6	E	25	Y
Special Socket				
6Q5	6	D	35	X
6Q6	6	H	35	X
"	"	D	100	"
6Q7	6	H	35	X
"	"	C	100	"
"	"	D	"	"
6Q11	6	A	25	
"	"	G	"	
"	"	J	"	
6R3	6	D	10	Z
6R4	6	A	20	
6R6	6	H	35	X
6R7	6	H	50	X
"	"	C	100	"
"	"	D	"	"
6R8	6	F	50	
"	"	B	"	
"	"	A	40	
"	"	D	"	
[6S2	6	H	100	X
Special Socket				
6S4	6	G	20	Y
6S5	6	C	45	X
6S6	6	H	20	X
6S7	6	H	35	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6S8	6	H	65	
"	"	G	90	
"	"	C	100	
"	"	A	"	
6SA7	6	D	35	X
6SB7	6	D	25	X
6SC7	6	C	75	
"	"	G	"	
6SD7	6	C	30	X
6SE7	6	C	25	X
6SF5	6	G	30	
6SF7	6	B	50	
"	"	D	100	
6SG7	6	C	10	Y
6SH7	6	C	20	Y
6SH8	6	C	20	
6SJ7	6	C	35	X
6SK7	6	C	45	X
6SL7	6	A	45	
"	"	C	"	
6SN7	6	A	35	
"	"	C	"	
6SQ7	6	B	35	
"	"	C	100	
"	"	D	"	
6SR7	6	B	45	
"	"	C	100	
"	"	D	"	
6SS7	6	C	35	X
6ST7	6	B	50	
"	"	C	100	
"	"	D	"	
6SU7	6	A	35	
"	"	C	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6SV7	6	B	40	
"	"	D	100	
6SZ7	6	B	50	
"	"	C	100	
"	"	D	"	
6T4*	6	B	10	Y
6T6	6	H	30	X
6T7	6	H	35	X
"	"	C	100	"
"	"	D	"	"
6T8	6	F	40	
"	"	B	15	
"	"	A	"	
"	"	D	"	
6T9	6	D	10	
"	"	H	"	
6TE8	6	D	35	X
"	"	H	"	"
6TE9	6	C	35	
"	"	F	"	
6TH8	6	D	35	X
"	"	H	"	"
6T10	6	C	10	
"	"	H	20	
6U3	6	E	10	
6U4	6	D	10	
6U6	6	D	25	X
6U7	6	H	15	X
6U8	6	B	10	
"	"	E	"	
6U9	6	G	10	
"	"	H	"	
Decal Tube				

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6U10	6	G	30	
"	"	J	20	
"	"	A	"	
[6V3	6	D	10	
Special Socket				
6V4	6	A	35	
"	"	C	"	
[6V5*	6	D	25	
Merit Test Only				
6V6	6	D	15	X
6V7	6	H	50	X
"	"	C	100	"
"	"	D	"	"
6V8	6	D	25	
"	"	C	"	
"	"	B	100	
"	"	E	"	
6V9	6	G	10	
"	"	F	"	
Decal Tube				
6W4	6	D	5	
6W5	6	G	35	X
"	"	D	"	"
6W6	6	D	10	X
6W7	6	H	15	X
6W9	6	A	20	
"	"	F	10	
Decal Tube				
6X4	6	A	30	
"	"	D	"	
6X5	6	D	25	X
"	"	G	"	"
6X6	6	C	30	X
6X8	6	B	10	
"	"	C	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6X9	6	G	10	
"	"	H	"	
"	Decal Tube			
6Y3	6	H	50	X
6Y6	6	D	15	X
6Y7	6	C	25	X
6Y7	"	D	"	"
6Y9	6	A	10	
"	"	F	"	
"	Decal Tube			
6Y10	6	C	5	
"	"	H	"	
6Z6	6	D	30	X
6Z7	6	C	25	X
"	"	D	"	"
6Z9	6	C	50	X
"	"	H	10	"
"	"	G	"	"
Special Socket 'B' 88A only				
6Z10	6	A	5	
"	"	F	100	
6ZY5	6	D	30	X
"	"	G	"	"
7A4	6	F	25	
7A5	6	F	20	
7A6	6	A	45	
"	"	F	"	
7A7	6	F	25	
7A8	6	G	25	
7AD7	6	F	15	
7AF7	6	D	25	
"	"	G	"	
7AG7	6	F	10	
7AH7	6	F	10	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
7AJ7	6	F	20	
7AK7	6	F	10	
7AN7*	7	B	25	
"	"	F	"	
7AT2	7	H	100	
Special Socket 'A' 88A only				
7AU7	7	B	20	X
"	"	C	"	"
7B4	6	F	30	
7B5	6	F	40	
7B6	6	A	35	X
"	"	D	100	"
"	"	F	"	"
7B7	6	F	35	
7B8	6	G	30	
7C4	6	G	50	
7C5	6	F	20	
7C6	6	A	35	X
"	"	D	100	"
"	"	F	"	"
7C7	6	F	20	
7D7	6	G	35	
7DJ8	7	B	10	
"	"	C	"	
7E6	6	A	35	X
"	"	D	100	"
"	"	F	"	"
7E7	6	F	25	
"	"	A	100	
"	"	G	"	
7ED7	7	B	15	Z
7EK7	7	B	10	
"	"	D	"	
7ES8	7	B	15	
"	"	C	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
7EY6	7	D	10	X
7F7	6	D	25	
"	"	G	"	
7F8	7	H	50	X
"	"	D	"	"
7FC7	7	B	10	
"	"	D	"	
7G7	6	F	20	
7G8	6	D	30	
"	"	G	"	
7GS7	7	A	10	
"	"	E	"	
7GU7	7	B	10	
"	"	C	"	
7GV7	7	C	20	
"	"	E	"	
7H7	6	F	10	
7HG8	7	B	15	
"	"	D	"	
7J7	6	F	35	
"	"	G	"	
7K7	6	G	40	
"	"	D	100	
"	"	F	"	
7KY6	7	B	10	
7KZ6	7	B	10	
7L7	6	F	15	
7N7	6	D	30	
"	"	G	"	
7Q7	6	G	20	
7R7	6	F	20	
"	"	A	100	
"	"	G	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
7S7	6	F	20	
"	"	G	100	
7T7	6	F	15	
7V7	6	F	15	
7W7	6	F	15	
7X6	6	A	35	
"	"	F	"	
7X7	6	A	50	
"	"	D	100	
"	"	F	25	
7Y4	6	A	35	
"	"	F	"	
7Z4	6	A	75	
"	"	F	"	
8A8	8	B	20	
"	"	E	"	
8AC9	8	B	10	
"	"	J	"	
8AC10	8	A	10	
"	"	G	"	
"	"	J	"	
8AG10	8	A	20	
8AL9	8	A	10	
"	"	E	"	
8AR11	8	E	5	
"	"	K	"	
8AU8	8	B	20	
"	"	C	10	
8AV11	8	A	20	
"	"	G	"	
8AW8	8	B	10	
"	"	C	"	

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Tube Type	Fil. Volts	SW "R"	Load	SW "L"
8AY11	8	C	15	
"	"	E	"	
"	"	H	"	
"	"	K	"	
8B8	8	A	30	
"	"	G	10	
8B10	8	C	20	
"	"	E	"	
"	"	H	"	
"	"	K	"	
8BA8	8	B	20	
"	"	C	10	
8BA11	8	D	10	
"	"	J	25	
8BE8	8	A	10	
"	"	E	"	
8BH8	8	B	15	
"	"	C	"	
8BM11	8	A	10	
"	"	F	"	
8BN8	8	F	10	
"	"	A	"	
"	"	D	"	
8BN11	8	C	10	
"	"	G	"	
[8BQ5	8	E	5	
Special Socket				
8BQ7	8	B	15	
"	"	C	"	
8BQ11	8	E	10	
"	"	K	50	
8BU11	8	D	10	
"	"	F	"	
"	"	H	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
8CB11	8	C	20	
"	"	A	10	
8CG7	8	B	50	
"	"	C	"	
8CM7	8	C	35	
"	"	F	20	
8CN7	8	C	35	X
"	"	A	"	"
"	"	B	"	"
8CS7	8	C	30	
"	"	G	15	
8CS8	8	B	10	
"	"	C	"	
[8CW5	8	E	5	
Special Socket				
8CX8	8	B	10	
"	"	C	"	
8CY7	8	B	10	Z
"	"	C	40	"
8D8	8	E	10	
8DX8	8	A	10	
"	"	F	"	
8EB8	8	B	25	
8EL8	8	E	20	
8EM5	8	D	10	Z
8EM7	8	A	15	
"	"	C	75	
8ET7	8	C	10	
"	"	B	100	
"	"	G	"	
8FQ7	8	B	50	
"	"	C	"	
8GK6	8	B	10	
8GM6	8	A	20	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
8GN8	6	B	10	
"	"	C	"	
8GJ7	8	B	15	
"	"	E	"	
8GN8	8	B	10	
"	"	C	"	
8GU7	8	B	10	
"	"	C	"	
8GX7	8	B	10	
"	"	E	"	
8HA6	8	A	10	
8HG8	8	B	15	
"	"	D	"	
8HZ8	8	B	15	
"	"	C	"	
8JE8	8	B	15	
"	"	C	"	
8JK8	8	B	10	
"	"	C	"	
8JL8	8	B	20	
"	"	C	10	
8JT8	8	B	25	
"	"	C	10	
8JU8	8	A	40	
"	"	C	"	
8JV8	8	B	20	
"	"	C	"	
8JZ8	8	K	50	Z
"	"	F	10	"
8JV8	8	B	20	
"	"	C	"	
8KA8	8	B	15	
"	"	D	5	
8KE8	8	B	10	
"	"	E	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
8KR8	8	B	10	
"	"	C	"	
8KS8	8	B	10	
"	"	C	"	
8LC8	8	B	15	
"	"	D	5	
8LE8	8	E	35	
8LN8	8	B	10	
"	"	E	20	
8LS6	8	B	20	Z
8LT8	8	D	10	
"	"	E	"	
"	"	F	"	
8MB11	8	A	10	
"	"	F	"	
8SN7	8	A	35	
"	"	C	"	
8U9	8	G	10	
"	"	H	"	
Decal Tube				
8X9	8	G	10	
"	"	H	"	
Decal Tube				
9A8	9	B	20	
"	"	E	"	
9AH9	9	B	10	X
"	"	F	"	"
9AK8	9	F	40	
"	"	B	15	
"	"	A	"	
"	"	D	"	
9AK10	9	A	25	
"	"	G	"	
"	"	J	"	

CARD 9

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
9AQ8	9	B	25	
"	"	C	"	
9AU7	9	B	20	X
"	"	C	"	"
9BJ11	9	A	10	
"	"	F	"	
9BM5	9	A	15	X
9BR7	9	B	10	X
"	"	C	35	"
"	"	D	"	"
9BR8	9	A	10	
"	"	E	"	
9BW6	9	B	15	
Special Socket				
9CG8	9	A	10	Z
"	"	E	"	"
9CL8	9	A	10	
"	"	E	"	
9D6	9	A	15	
9DE4	9	D	5	
9DZ8	9	A	30	
"	"	G	10	
9EA8	9	B	10	
"	"	E	"	
9ED4	9	D	100	
Magnoval - 88A Only				
9EF6	9	D	15	X
9EJ5	9	B	10	
9GH8	9	B	10	
"	"	E	"	
9GV8	9	B	30	
"	"	E	10	
9JW8	9	B	10	
"	"	E	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
9KC6	9	B	10	
9KV8	9	B	30	
"	"	C	10	
9KX6	9	B	10	
9KZ8	9	B	10	
"	"	E	"	
9LA6	9	B	10	
9MN8	9	A	25	
"	"	H	"	
"	"	K	"	
9P9	9	A	10	X
9U8	9	B	10	
"	"	E	"	
9V9	9	G	10	
"	"	F	"	
Decal Tube				
9X8	9	B	10	
"	"	C	"	
10AL11	10	C	15	
"	"	H	"	
10BQ5	10	E	5	
Special Socket				
10C8	10	B	20	
"	"	F	"	
10CW5	10	E	5	
Special Socket				
10CW8	10	B	25	
"	"	C	"	
10DA7	10	G	20	
"	"	C	40	
10DE7	10	B	20	Z
"	"	C	60	"
10DR7	10	B	10	Z
"	"	C	50	"

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
10DX8	10	A	30	
"	"	F	10	
10EB8	10	B	10	
"	"	C	"	
10EG7	10	A	20	
"	"	C	40	
10EM7	10	A	15	
"	"	C	75	
10EW7	10	B	5	Z
"	"	C	50	"
10FD7	10	C	50	
"	"	B	5	
10FH6	10	D	10	X
10FR7	10	C	50	
"	"	B	5	
10GF7	10	C	40	
"	"	E	10	
10GK6	10	B	10	
10GN8	10	B	10	
"	"	C	"	
10GV8	10	B	30	
"	"	E	10	
10HA6	10	A	10	
10HF8	10	B	15	
"	"	C	"	
10J10	10	A	5	
"	"	F	10	
10JA8	10	B	50	
"	"	C	25	
10JT8	10	B	25	
"	"	C	10	
10JV8	10	B	20	
"	"	C	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
10JY8	10	B	15	
"	"	C	"	
10KR8	10	B	5	
"	"	C	20	
10KU8	10	C	15	
"	"	B	100	
"	"	G	"	
10LB8	10	B	30	
"	"	C	5	
10LE8	10	E	20	
10LW8	10	B	25	
"	"	C	10	
10LY8	10	B	15	
"	"	C	15	
10LZ8	10	B	25	
"	"	C	"	
10T10	10	C	10	
"	"	H	5	
10Z10	10	A	5	
"	"	F	100	
11AC11	11	C	35	
"	"	F	"	
"	"	H	10	
11AF9	11	A	10	
"	"	F	"	
Decal Socket				
11AF11	11	A	15	
"	"	C	"	
"	"	F	"	
11AR11	11	E	5	
"	"	K	"	
11BM8	11	A	30	
"	"	G	10	

* SEE TUBE MANUAL FOR INTERCONNECTED PINS

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
11BQ11	11	E	10	
"	"	K	50	
11BT11	11	A	10	
"	"	C	"	
"	"	E	"	
11C5	11	B	25	Z
11CA11	11	C	20	
"	"	F	"	
"	"	H	25	
11CF11	11	A	10	
"	"	E	"	
"	"	J	"	
11CY7	11	B	10	Z
"	"	C	40	"
11DS5	11	A	30	X
11FY7	11	C	5	
"	"	K	35	
11HM7	11	B	10	Y
11JE8	11	B	15	
"	"	C	"	
11KV8	11	B	30	
"	"	C	10	
11LQ8	11	B	10	
"	"	C	"	
11LT8	11	D	100	
"	"	E	20	
"	"	F	100	
11MB8	11	A	10	
"	"	E	"	
11Y9	11	A	10	
"	"	F	"	
11R3	11	Decal Tube	10	Z

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
12A4	12	D	10	Z
Special Socket				
12A6	12	D	20	X
12A8	12	D	35	X
12AB5	12	D	35	Z
12AB6	12	A	10	
12AC5	12	D	25	X
12AC6	12	A	30	
12AC10	12	A	10	
"	"	G	"	
"	"	J	"	
12AD5	12	B	40	
12AD6	12	A	10	
12AD7	12	B	35	X
"	"	C	"	"
12AE6	12	A	30	
"	"	D	100	
"	"	G	"	
12AE7	12	B	10	X
"	"	C	"	"
12AE10	12	C	10	
"	"	H	"	
12AF3	12	B	20	X
12AF6	12	A	25	
12AG6	12	A	20	
12AG7	12	C	5	X
12AH6	12	A	10	
12AH7	12	A	65	
"	"	D	"	
12AH8	12	B	35	X
"	"	C	"	"
12AJ6	12	A	30	
"	"	D	100	
"	"	G	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
12AJ7	12	B	30	
"	"	E	"	
12AJ8	12	B	20	
"	"	E	"	
12AK7	12	C	5	X
12AL5	12	B	10	
"	"	E	"	
12AL8	12	F	75	
"	"	G	25	
12AL11	12	C	15	
"	"	H	"	
12AQ5	12	A	25	X
12AS5	6	B	20	Z
12AT6	12	A	35	
"	"	D	100	
"	"	G	"	
12AT7	12	B	10	X
"	"	C	"	"
12AU6	12	A	10	
12AU7	12	B	20	X
"	"	C	"	"
12AU8	12	B	25	
"	"	C	"	
12AV5	12	A	10	X
12AV6	12	A	35	
"	"	D	100	
"	"	G	"	
12AV7	12	B	10	X
"	"	C	"	"
12AW6	12	A	10	
12AW7	12	A	20	
12AX3	12	K	10	Y
12AX4	12	D	10	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
12AX7	12	B	20	X
"	"	C	"	"
12AY3	12	B	10	X
12AY7	12	B	50	X
"	"	C	50	X
12AZ7	12	B	25	X
"	"	C	"	"
12B3	12	D	10	
Special Socket				
12B4	12	D	5	Z
Special Socket				
12B6	12	H	50	X
12B7	12	D	45	
12B8	12	H	20	X
"	"	E	"	"
12BA6	12	A	10	
12BA7	12	B	10	
12BD5	12	A	10	X
12BD6	12	A	25	
12BE3	12	K	5	Y
12BE6	12	A	10	
"	"	E	100	
12BF6	12	A	35	
"	"	D	100	
"	"	G	"	
12BF11	12	C	20	
"	"	H	10	
12BH7	12	B	5	X
"	"	C	"	"
12BJ3	12	K	5	Y
12BK5	12	C	10	Z
12BK6	12	A	35	
"	"	D	100	
"	"	G	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"	Tube Type	Fil. Volts	SW "R"	Load	SW "L"	Tube Type	Fil. Volts	SW "R"	Load	SW "L"	Tube Type	Fil. Volts	SW "R"	Load	SW "L"
12BL6	12	A	25		12CA5	12	B	15	Z	12DK5	12	B	10		12DV8	12	G	30	
12BM5	12	A	25	X	12CK3	12	B	10	X	12DK6	12	A	10		"	"	A	100	
12BN6	12	G	100		12CL3	12	B	10	X	12DK7	12	D	100		"	"	E	"	
12BQ6	12	D	10	X	12CM6	12	G	10	Y	"	"	E	"		12DW4	12	B	10	X
12BR3	12	B	10	X	12CN5	12	B	5	Z	12DL8	12	G	25		12DW5	12	D	10	Z
12BR7	12	B	10	X	12CR5	12	F	25	Z	"	"	A	100		12DW7	12	B	30	X
"	"	C	35	"	12CR6	12	E	25		"	"	E	"		"	"	C	"	"
"	"	D	"	"	"	"	B	100		12DM4	12	D	5		12DW8	12	B	30	
12BS3	12	B	5	X	12CS5*	12	D	20	Z	12DM5	12	B	10	Z	"	"	C	"	
12BT3	12	K	10	Y	12CS6	12	A	10		12DM7	12	B	20	X	"	"	E	100	
12BT6	12	A	35		12CS7	12	G	15		"	"	C	"	"	12DY8	12	A	20	
"	"	D	100		"	"	C	30		12DM8	12	D	25		"	"	E	100	
"	"	G	"		12CT3	12	B	10	Y	"	"	E	"		12DZ6	12	A	10	
12BU6	12	A	35		12CT8	12	B	15		"	"	F	"		12DZ8	12	A	30	
"	"	D	100		"	"	F	"		12DQ4	12	D	10		"	"	G	10	
"	"	G	"		12CU5	12	B	5	Z	12DQ6	12	D	5	X	12E5	12	D	30	X
12BU11	12	D	10		12CU6	12	D	10	X	12DQ7	12	B	10	Y	12EA6	12	A	10	
"	"	F	"		12CW3	12	A	65		12DS7	12	G	15		12EB5	12	E	15	
"	"	H	"		12CW4	12	A	90		"	"	A	100		Special Socket				
12BV7*	12	B	10	Y	12CW6	12	D	35	X	"	"	E	"		12EC8	12	A	30	
12BV11	12	F	10		12CX6	12	A	10		12DT5	12	D	10	Z	"	"	F	"	
"	"	G	"		12CY6	12	A	10		12DT6	12	A	10		12ED5	12	B	10	Z
12BW4	12	A	25		12D4	12	D	5		12DT7	12	B	20	X	12EF6	12	D	20	X
"	"	C	"		12DA4	12	D	5		"	"	C	"	"	12EG5	12	B	25	Z
12BX6	12	B	15		12DB5	12	D	30	Z	12DT8	12	B	10		12EG6	12	A	10	
12BY3	12	B	10	X	12DE4	12	D	5		"	"	C	"		12EH5	12	B	10	Z
12BY7*	12	B	10	Y	12DE8	12	A	20		12DU7	12	A	15		12EK6	12	A	25	
12BZ6	12	A	10		"	"	G	100		"	"	C	100		12EL6	12	A	25	
12BZ7	12	B	30	X	12DF5	12	A	35		"	"	E	"		"	"	D	100	
"	"	C	"	"	"	"	D	"		12DV7	12	C	25		"	"	G	"	
12C5	12	B	15	Z	12DF7	12	B	15		"	"	B	100		12EM6	12	A	20	
12C8	12	H	75	X	"	"	C	"		"	"	G	"		"	"	E	100	
"	"	C	100	"	12DJ8	12	B	10							12EN6	12	D	20	X
"	"	D	"	"	"	"	C	"											

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Tube Type	Fil. Volts	SW "R"	Load "L"	SW "L"
12EQ7	12	B	10	
"	"	F	100	
12EZ6	12	A	10	
12F5	12	H	35	X
12F8	12	F	30	
"	"	A	100	
"	"	D	"	
12FA6	12	A	10	
12FB5	12	E	15	
Special Socket				
12FK6	12	A	30	
"	"	D	100	
"	"	G	"	
12FM6	12	A	15	
"	12	D	100	
"	"	G	"	
12FQ7	12	B	25	
"	"	C	"	
12FQ8	12	B	15	
"	"	C	"	
12FR8	12	A	15	
"	"	G	"	
"	"	F	100	
Internal Connections Disregard Short Test				
12FS5	12	A	10	
12FT6	12	A	25	
"	"	D	100	
"	"	G	"	
12FV7	12	B	15	X
"	"	C	"	"
12FX5	12	B	5	Z
12FX8	12	B	10	
"	"	D	25	

Tube Type	Fil. Volts	SW "R"	Load "L"	SW "L"
12FY8	12	A	10	
"	"	G	10	
12G4	12	D	65	Z
12G7	12	H	35	X
"	"	C	100	"
"	"	D	"	"
12G8	12	G	30	X
"	"	F	30	"
12G11	12	C	20	
"	"	H	10	
12GA6	12	A	15	
12GC6	12	D	5	X
12GE5	12	B	90	
12GF5	12	B	90	
12GJ5	12	D	5	X
12GN6	12	A	35	
"	"	E	"	
12GN7	12	B	10	Y
12GT5	12	D	5	X
12GV5	12	J	5	X
12GW6	12	D	5	X
12H4	12	C	75	X
12H6	12	G	50	X
"	"	D	"	"
12HE7	12	B	10	Z
"	"	J	"	"
Special Socket 'B' 88A Only				
12HG7	12	B	5	Y
12HL5	12	B	10	
12HL7	12	B	10	Y
12HU8	12	B	10	
"	"	D	"	"
12J5	12	D	25	X

Tube Type	Fil. Volts	SW "R"	Load "L"	SW "L"
12J7	12	H	35	X
12J8	12	A	10	
"	"	E	75	
"	"	F	"	
12JB6	12	D	5	X
12JN6	12	A	10	
12JN8	12	A	5	
"	"	E	5	
12JQ6	12	A	100	
12JS6	12	E	10	
If No Reading				
12JS6	12	J	10	X
12JT6	12	E	10	
12JZ8	12	K	50	Z
"	"	F	10	Z
12K5	12	D	30	Z
12K7	12	H	75	X
12K8	12	D	10	X
12KL8	12	B	10	
"	"	F	100	
12L6	12	D	15	X
12MD8	12	C	20	
"	"	D	"	"
"	"	F	"	"
12MN8	12	A	25	
"	"	H	"	
"	"	K	"	
12NK7	12	H	35	X
12Q7	12	H	35	X
"	"	C	100	"
"	"	D	"	"
12R5	12	B	10	Z

Tube Type	Fil. Volts	SW "R"	Load "L"	SW "L"
12S8	12	H	65	
"	"	G	"	
"	"	C	100	
"	"	A	"	
12SA7	12	D	35	X
12SB7	12	D	25	X
12SB8	12	A	35	
"	"	C	100	
"	"	G	"	
12SC7	12	C	75	
"	"	G	"	
12SF5	12	G	30	
12SF7	12	B	50	
"	"	D	100	
12SG7	12	C	15	Z
12SH7	12	C	20	Z
12SJ7	12	C	35	X
12SK7	12	C	45	X
12SL7	12	A	45	
"	"	C	"	
12SN7	12	A	35	
"	"	C	"	
12SQ7	12	B	35	
"	"	C	100	
"	"	D	"	
12SR7	12	B	45	
"	"	C	100	
"	"	D	"	
12SS7	12	C	35	X
12ST7	12	B	50	
"	"	C	100	
"	"	D	"	
12SW7	12	B	50	
"	"	C	100	
"	"	D	100	

CARD 11

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
12SX7	12	A	30	
"	"	C	"	
12SY7	12	D	35	X
12T10	12	C	10	
"	"	H	20	
12TE8	12	D	35	X
"	"	H	"	"
12TE9	12	C	35	
"	"	F	"	
12U7	12	B	20	X
"	"	C	"	"
12V6	12	D	15	X
12W6	12	D	10	X
12X4	12	A	30	
"	"	D	"	
13CM5	13	D	10	X
13CW4	13	A	90	
13DE7	13	B	20	Z
"	"	C	60	"
13DR7	13	B	10	Z
"	"	C	50	"
13EC7	13	B	15	
13EM7	13	A	15	
"	"	C	75	
13FD7	13	C	50	Z
"	"	B	5	Z
13FM7	13	E	85	
"	"	K	25	
13FR7	13	C	50	
"	"	B	5	
13GB5	13	E	10	
Magnoval - 88A Only				
13GC8	13	B	10	
"	"	E	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
13GF7	13	C	40	
"	"	E	10	
13J10	13	A	5	
"	"	F	100	
13JZ8	12	K	50	
"	"	F	10	
13V10	13	C	10	
"	"	H	"	
13Z10	13	A	5	
"	"	F	100	
14A4	12	F	20	
14A5	12	F	15	
14A7	12	F	25	
14AF7	12	D	25	
"	"	G	"	
14B6	12	A	35	
"	"	D	100	
"	"	F	"	
14B8	12	G	30	
14BL11	14	A	10	
"	"	C	"	
"	"	E	"	
14BR11	14	B	10	
"	"	H	"	
"	"	K	"	
14C5	12	F	10	
14C7	12	F	20	
14DA7	14	C	40	
"	"	G	20	
14E6	12	A	35	
"	"	D	100	
"	"	F	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
14E7	12	F	25	
"	"	A	100	
"	"	G	"	
14F7	12	D	25	
"	"	G	"	
14G6	14	B	35	
"	"	D	100	
"	"	F	"	
14GT8	14	B	10	
"	"	D	"	
"	"	F	30	
14GW8	14	A	20	
"	"	F	10	
14H7	12	F	10	
14J7	12	F	30	
"	"	G	90	
14JG8	14	B	10	
"	"	D	"	
"	"	F	30	
14K7	12	D	30	
"	"	G	90	
14L7	12	A	35	
"	"	D	100	
"	"	E	"	
14N7	12	D	30	
"	"	G	"	
14Q7	12	G	20	
14R7	12	F	20	
"	"	A	100	
"	"	G	"	
14S7	12	F	20	
"	"	G	100	
14W7	12	F	15	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
14X7	12	A	20	
"	"	D	100	
"	"	F	20	
14Y4	12	A	35	
"	"	F	"	
14Y7	14	B	25	
"	"	E	"	
15A6	15	B	15	
15A8	15	C	15	X
"	"	G	"	"
15AB9	15	E	20	
"	"	G	"	
Decal Tube				
15AF11	15	A	15	
"	"	C	"	
"	"	F	"	
15BD7	15	B	35	
"	"	D	100	
"	"	F	"	
15BD11	15	C	15	
"	"	F	10	
"	"	A	"	
15CW5	15	E	05	
Special Socket				
15DQ8	15	A	15	
"	"	F	"	
15EA7	15	A	10	
"	"	C	35	
15EW6	15	A	10	
15EW7	15	B	10	Z
"	"	C	50	"
15FM7	15	E	85	
"	"	K	25	

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Tube Type	Fil. Volts	SW "R"	Load	SW "L"
15FY7	15	K	35	
"	"	C	5	
15HA6	15	A	10	
15HB6	15	B	10	
15KY8	15	C	50	
"	"	E	10	
15LE8	15	E	35	
15MF8	12	F	10	
"	"	K	"	
16A5	16	B	10	
16A8	15	A	20	
"	16	G	20	
16AK9	16	C	20	
"	"	H	"	
"	"	K	"	
[16AL3	16	G	10	
Special Socket				
16AQ3	16	B	10	X
16AX3	16	K	10	Y
16BQ11	16	E	10	
"	"	K	50	
16BX11	16	B	25	
"	"	E	20	
"	"	H	"	
16GK6	16	B	10	
16GK8	16	A	50	
"	"	G	10	
16GY5	16	J	0	X
16KA6	16	E	10	
16LU8	16	F	5	Z
"	"	K	"	"
16Y9	16	A	10	
"	"	F	"	
Decal Tube				

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
17A8	17	B	10	
"	"	E	100	
17AB9	17	E	20	
"	"	G	"	
Decal Tube				
17AB10	17	A	10	
"	"	F	100	
17AV5	17	A	10	X
17AX3	17	K	10	Y
17AX4	17	D	10	
17AY3	17	B	10	X
17AZ3	17			
17BE3	17	K	5	Y
17BF11	17	C	15	
"	"	H	5	
17BH3	17	B	10	X
17BJ6	17	A	15	
17BQ6	17	D	10	X
17BR3	17	B	10	X
17BS3	17	B	5	X
17BS8	17	B	15	
"	"	C	"	
17BW3	17	K	5	Y
17BZ3	17	K	5	Y
17C5	17	B	25	Z
17C8	17	B	35	
"	"	C	100	
"	"	F	"	
17C9	17	A	10	
"	"	C	"	
17CA5	17	B	15	Z
17CK3	17	B	10	X
17CL3	17	B	10	X
17CQ4	17	D	10	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
17CT3	17	B	10	Y
17CU5	17	B	10	Z
17D4	17	D	5	
17DA4	17	D	5	
17DE4	17	D	10	
17DL8	17	B	10	
"	"	E	20	
17DM4	17	D	5	
17DQ4	17	D	10	
17DQ6	17	D	5	X
17DW4	17	B	10	X
17EM7	17	A	20	
"	"	C	35	
17EW8	17	B	10	
"	"	C	"	
17GB3	15	E	10	X
[17GB5	17	E	10	
Magneval - 88A Only				
17GE5	17	B	90	
17GJ5	17	D	5	X
17GK8	15	A	25	
"	"	G	"	
"	15	G	"	
17GV5	17	J	0	X
17GT5	17	D	5	X
17GW6	17	D	5	X
17H3	17	F	15	Z
17HC8	17	A	20	
"	"	G	10	
17JB6	17	D	5	X
17JG6	17	E	10	
17JF6	15	D	10	X
17JK8	17	B	10	
"	"	E	"	
17JM6	17	E	10	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
17JN6	17	A	10	
17JQ6	17	G	100	
17JR6	17	E	10	
17JT6	17	E	10	
17JZ8	17	K	50	Z
"	"	F	10	"
17KV6	17	E	10	
[17KW6	17	E	10	Y
Magneval - 88A Only				
17L6	17	D	15	X
17LD8	17	B	25	
"	"	E	"	
17N8	17	B	35	
"	"	C	100	
"	"	F	"	
17R5	17	B	10	Z
17W6	17	D	10	X
17X10	17	A	10	
17X10	"	F	100	
[17Y9	17	A	10	
"	"	F	"	
Decal Tube				
17Z3	17	E	20	
17Z9	17	C	50	X
"	"	H	10	"
"	"	G	"	"
Special Socket 'B' 88A Only				
18A5	18	A	15	X
18AJ10	17	C	15	
"	"	H	"	
18AK5	18	A	10	
18AQ5	18	A	25	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
18AR11	18	E	5	
"	"	K	"	
18D2	17	B	20	
"	"	E	"	
18DZ8	18	A	30	
"	"	G	"	
18FW6	18	A	10	
18FX6	18	A	10	
18FY6	18	A	25	
"	"	D	100	
"	"	G	"	
[18GB5	18	E	10	
Magnoval - 88A Only				
18GD6	18	A	15	
18GE6	18	A	30	
"	"	D	100	
"	"	G	"	
18GV8	18	B	10	
"	"	E	"	
18HB8	18	A	30	
"	"	E	10	
18J6	18	D	10	
"	"	G	"	
19A3	19	G	10	
19AJ8	19	B	15	
"	"	E	"	
19AQ5	19	A	25	X
19AU4	19	D	5	
19BG6	19	D	15	X
19BY7	19	B	20	Z
19C8	19	F	40	
"	"	B	15	
"	"	A	"	
"	"	D	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
19CG3	19	K	5	Y
19CL8	19	A	10	
"	"	E	"	
19CS4	19	D	10	
19D8	19	B	15	
"	"	E	"	
19DC8	19	B	35	
"	"	C	"	
"	"	F	"	
19DE3	19	G	30	
19DE7	19	B	20	Z
"	"	C	60	"
19EA8	19	B	10	
"	"	E	"	
19EW7	19	B	50	Z
"	"	C	"	"
19EZ8	19	B	15	
"	"	C	"	
"	"	E	"	
19FL8	19	B	35	
"	"	C	100	
"	"	F	"	
19FX5	19	G	10	Z
19GQ7	19	B	50	
"	"	D	50	
"	"	F	50	
19HR6	19	A	10	
19HS6	19	A	15	
19HV8	19	A	30	
"	"	E	5	
19J6	19	D	10	
"	"	G	"	
19JN8	19	A	10	
"	"	E	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
[19KF6	19	E	10	Z
Magnoval - 88A Only				
19KG8	19	B	5	
"	"	E	5	
19MR9	19	A	10	
19Q9	19	A	5	
"	"	F	"	
19T8	19	F	40	
"	"	B	15	
"	"	A	"	
"	"	D	"	
19V8	19	D	25	
"	"	C	"	
"	"	B	100	
"	"	E	"	
19X3	19	E	10	
19X8	19	B	10	
"	"	C	"	
19Y3	19	E	10	
20AQ3	20	B	10	X
20D3	12	B	35	X
"	"	C	"	"
20D4	6	B	20	
"	"	E	"	
20EQ7	20	B	10	
"	"	F	100	
20EW7	20	B	50	Z
"	"	C	"	"
20J8	19	D	35	X
"	"	H	"	"
20LF6	20	J	10	X
21A6	21	B	15	
21A7	21	F	40	
"	"	G	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
21B6	21	B	15	
21EX6	21	D	10	X
21GY5	19	J	5	X
21HB5	21	B	90	
21HD5	21	J	100	X
21HJ5	21	J	100	X
21JS6	Test same as 23JS6			
21JV6	21	A	10	
21JZ6	21	J	10	X
21KA6	21	E	10	
21KA6	21	E	10	
IF No Reading				
21KA6	21	J	10	
21LG6	21	E	10	
21KQ6	21	E	10	Y
Magnoval - 88A Only				
21LR8	21	C	10	
"	"	E	"	
21LU8	21	F	5	Z
"	"	K	"	"
22BH3	22	B	10	X
22BR3	22	K	10	X
22BW3	22	K	10	Y
22DE4	22	D	10	
22JF6	22	D	10	X
22JG6	22	E	10	
22JR6	22	E	20	
22JU6	22	E	10	
22JV6	22	E	10	
22KM6	22	D	10	X
22KV6	20	E	20	
23JS6	23	E	10	
If No Reading				
23JS6	23	J	10	X

* SEE TUBE MANUAL FOR INTERCONNECTED PINS

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
23Z9	23	C	50	X
"	"	H	10	"
"	"	G	10	"
Special Socket 'B' 88A Only				
24BF11	24	C	20	
"	"	H	10	
24GA7	25	A	10	
"	"	D	"	
24JE6	24	D	10	X
24JZ8	24	B	50	Z
"	"	E	10	"
24LQ6	24	D	10	X
25A6	25	D	15	X
25A7	25	D	20	X
"	"	F	"	"
25AC5	25	D	50	X
25AC7	25	D	35	X
25AU4	25	D	5	
25AV5	25	A	10	X
25AX4	25	D	10	
25B6	25	D	15	X
25B8	25	H	20	X
"	"	E	"	"
25BK5	25	C	10	Z
25BQ6	25	D	10	X
22BR3	25	B	10	X
25C5	25	B	10	Z
25C6	25	D	15	X
25CA5	25	B	15	Z
25CD6	25	D	5	X
25CG3	25	K	10	Y
25CG6	25	A	15	X
25CK3	25	B	10	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
25CM3	25	B	35	X
25CR5	25	F	25	Z
25CU6	25	D	10	X
25D4	25	D	10	
25D5	25	D	15	X
25D8	25	H	20	X
"	"	D	"	"
"	"	E	100	"
25DK4	25	G	10	Y
25DN6	25	D	5	X
25DQ6	25	D	5	X
25DT5	25	D	10	Z
25DZ6	25	D	10	X
25E5	25	D	15	
25EC6	25	D	15	X
25EH5	25	B	5	Z
25EH6	25	B	10	
25F5	25	B	5	Z
25FY8	25	A	10	
"	"	G	"	
25JQ6	25	A	100	
25JZ8	25	K	50	Z
"	"	F	10	"
25L6	25	D	15	X
25N6	25	D	10	X
25SN7	25	A	35	
"	"	C	"	
25U4	25	D	10	
25W4	25	D	10	
25W6	25	D	10	X
25X6	25	G	15	X
"	"	E	"	"
25Y4	25	D	15	X
25Z4	25	D	10	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
25Z6	25	D	20	X
"	"	G	"	"
26A6	26	A	10	
26AQ8	25	B	20	
"	"	C	"	
26BK6	26	A	35	
"	"	D	100	
"	"	G	"	
26C6	26	A	35	
"	"	D	100	
"	"	G	"	
26CG6	26	A	15	
26D6	26	A	15	
26DQ5	26	A	10	Y
Merit Test Only				
26E6	26	D	10	X
26HU5	26	G	50	
26LX6	26	J	10	X
26Z5W	26	A	20	X
"	"	D	"	"
27BL7	25	B	20	
"	"	E	"	
27BL8	25	B	20	
"	"	E	"	
27GB5	27	E	10	
Magnoval - 88A Only				
28AK8	28	F	50	
"	"	A	20	
"	"	B	"	
"	"	D	"	
28D7	28	B	15	
"	"	E	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
28EC4	28	D	10	Z
Magnoval - 88A Only				
28GB5	28	A	5	X
28HA6	28	B	10	
28HD5	28	J	90	X
28Z5	28	A	40	
"	"	F	"	
29GK6	29	B	10	
29HA6	29	A	10	
29LE6	29	E	20	Y
Magnoval 88A only				
29KQ6	29	E	10	Y
Magnoval - 88A Only				
30A5	30	B	15	Z
30AE3	30	G	10	
Special Socket				
30AG11	30	C	10	
"	"	E	"	
"	"	H	"	
"	"	K	"	
30CW5	30	E	5	
Special Socket				
30HJ5	30	J	90	X
30JZ6	30	E	20	
30KD6	30	J	10	X
31A3	31	B	20	
31AL10	31	A	20	
"	"	C	"	
"	"	H	"	
31JS6	31	E	10	
If No Reading				
31JS6	31	J	10	X

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Tube Type	Fil. Volts	SW "R"	Load	SW "L"
31LQ6	30	F	10	X
32A8	28	A	100	
"	"	G	10	
32ET5	32	B	10	Z
32GA7	32	A	5	
"	"	D	"	
32HQ7	35	B	10	
"	"	J	"	
32L7	32	D	30	X
"	"	F	"	"
33GT7	33	B	10	Z
"	"	K	100	Z
33GY7	33	B	10	Z
"	"	A	100	Z
33HE7	35	B	10	Z
"	"	J	"	"
Special Socket 'B' 88A Only				
33HK7	35	B	10	Z
"	"	J	"	"
Special Socket 'B' 88A Only				
33JV6	33	A	5	
34CD3	34	K	10	Y
34CE3	30	D	10	Y
34CM3	34	B	35	X
34GD5	34	B	10	Z
34R3	30	D	10	Z
35A3	35	G	10	
34GD5	34	B	10	Z
35A5	35	F	15	
35A6	35	F	15	
35B5	35	A	15	X
35C3	35	G	10	
35C5	35	B	15	Z
35CD6	35	D	5	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
35D5	35	A	10	
35DZ8	35	A	30	
"	"	G	10	
35EH5	35	B	5	Z
35ET5	35	B	10	Z
35GL6	35	B	5	Y
35HB8	35	A	30	
"	"	E	10	
35LR6	30	J	10	X
35L6	35	D	15	X
35QL6	35	E	5	
Special Socket				
35W4	35	G	10	Y
35Y4	35	B	10	Z
35Z3	35	B	10	
35Z4	35	D	10	X
35Z5	35	D	5	Z
35Z6	35	D	10	X
"	"	G	"	"
36AM3	36	G	5	Y
36KD6	36	J	10	X
38A3	38	E	10	
38HE7	38	B	10	Z
"	"	J	"	"
Special Socket 'B' 88A Only				
38HK7	38	B	10	Z
"	"	J	"	"
Special Socket 'B' 88A Only				
40FR5	40	B	10	Z
40KD6	40	J	10	X
40KG6	40	E	10	Y
Magnoval - 88A Only				
40Z5	40	D	10	Z

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
42EC4	42	D	10	Z
Magnoval - 88A Only				
42KN6	42	C	50	Y
Special Socket 'B' 88A Only				
45A5	45	F	15	
45B5	45	B	15	
45Z3	45	B	10	X
Special Socket				
45Z5	45	D	10	Z
50A5	50	F	15	
50AX6	50	D	10	X
"	"	G	"	"
50B5	50	A	15	X
50BK5	50	C	10	Z
50BM8	50	A	25	
"	"	G	"	"
50C5	50	B	15	Z
50C6	50	D	15	X
50CA5	50	B	15	Z
50CD6	50	D	5	X
50CG6	50	D	15	X
50DC4	50	G	10	Y
50E5	50	D	30	X
50EH5	50	B	5	Z
50FA5	50	B	10	Z
50FE5	50	D	5	X
50FK5	50	B	10	Z
50FY8	50	A	10	
"	"	G	"	"
50HC6	50	B	10	Y
50HK6	50	B	15	Y
50HN5	50	B	10	
50JY6	"	D	40	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
50JY8	50	D	10	X
50L6	50	D	15	X
50X6	50	A	15	
"	"	F	"	
50Y6	50	D	10	X
"	"	G	"	"
50Y7	50	D	15	X
"	"	G	"	"
50Z6	50	D	15	X
"	"	G	"	"
50Z7	50	D	15	X
"	"	G	"	"
53HK7	50	B	10	Z
"	"	J	"	"
Special Socket 'B' 88A Only				
55N3	50	E	10	
58HE7	58	B	10	Z
"	"	J	10	Z
Special Socket 88A Only				
60EH5	50	B	10	Z
60FX5	50	B	10	Z
60HL5	50	B	10	

* SEE TUBE MANUAL FOR INTERCONNECTED PINS

Warranty

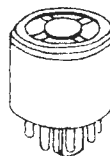
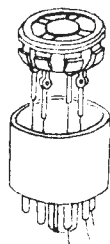
SECO MFG. CO. warrants each instrument and every other piece of equipment manufactured by it to be free from defects in material and workmanship. This warranty is limited to making good at its factory any device which shall, within 90 days after date of purchase, prove to be defective.



**SECO ELECTRONICS
CORP.**

1001 2nd Street South
Hopkins, Minnesota 55343

ADAPTOR TO ACCOMMODATE OLD STYLE TUBE BASES



Remove glass from any GT tube base having all eight pins intact, (example 6SA7GT). Clean inside of base sufficiently to fit an Amphenol 78S4 socket. Then solder a three-inch piece of hook-up wire to each terminal of the 78S4 socket except the number five pin. Strip enough insulation from each lead to leave one-half inch of insulation snugged up to each terminal. Next proceed to wire as follows.

78S4 Socket Tube Base

From pin 1 through pin 8
From pin 2 through pin 2
From pin 3 through pin 3
From pin 4 through pin 7

78S6 Socket Tube Base

From pin 1 through pin 8
From pin 2 through pin 2
From pin 3 through pin 3
From pin 4 through pin 4
From pin 5 through pin 5
From pin 6 through pin 7

78S5 Socket Tube Base

Pin 1 through pin 8
Pin 2 through pin 2
Pin 3 through pin 3
Pin 4 through pin 4
Pin 5 through pin 7

78S7S Socket Tube Base

Pin 1 through pin 8
Pin 2 through pin 2
Pin 3 through pin 3
Pin 4 through pin 4
Pin 5 through pin 5
Pin 6 through pin 6
Pin 7 through pin 7

Filament Voltages will be determined from a tube manual. Load Settings will be derived from a known good tube. Switch "R" Setting determined by referring to R Switch detail. Switch "L" remains in Normal.

SECO MODEL 88 TUBE TESTER

GENERAL DESCRIPTION

The Seco Model 88 Grid Circuit and Tube Merit tester is a very compact and highly accurate tube tester designed primarily for the television technician. Its test coverage includes the majority of heater type radio tubes as well as filament rectifiers.

Three basic tests are available, each in turn applies the desired data to a special two stage DC amplifier. The amplified signal voltage which is either D.C. or rectified signal voltage is fed to the meter through the proper amplifier input.

These three tests are namely:

1. Grid Circuit and shorts test
2. Merit test
3. Filament continuity

The Grid Circuit and selected leakage and shorts test employs the Seco developed and patented "D.C. testing procedure" for detecting "hard-to-find" faults such as grid emission, small leakage and shorts. Low test voltages (4.5 - 50 VDC) are selected to minimize danger of damage to a good tube. If the tube is free of the above undesired faults, the meter pointer will deflect into the good area on the left of the meter arc.

The Tube Merit Test is accomplished by feeding a low test voltage of 22 volts through a suitable

limiting resistance to the cathode and the plate or grids. This constitutes an emission quality test. The tube under test is always isolated from the actual meter circuit. The circuit employed in the Model 78 makes available an unusually wide choice of test conditions as well as safeguarding against meter damage. A good tube will cause the meter pointer to read in the "good area" on the right of the meter arc.

The Filament Continuity Test is convenient for locating open heaters in series string operated receivers. If heater continuity is satisfactory, the meter pointer will read in the "good" area to the right.

The pin selector and switching circuits:

It is possible through proper choice of switches to test as many tubes on the Model 88 with its five sockets as some testers do using in excess of one hundred sockets.

The rotary switch "R" is a dual ganged switch. One section is an isolating type while the other is a selecting type.

The lever switch "L" is a multi-rotor switch arranged for opening circuits to selected pins. It also transposes the heater voltage to different pins. Study of the chart will reveal that 14 heater pin combinations are available in addition to the 9 pin special socket.

OPERATING INSTRUCTIONS—ADDITIONAL NOTES

1. See operating instructions in the cover of your tester.
2. Test each section of dual and multi-purpose tubes individually. Usually only the switch "R" and the load pot need to be adjusted.
3. Filament type rectifiers are checked for emission only, a shorted tube will produce no reading.
4. Lever switch "L" is always left at position marked "normal" unless specified otherwise under the heading switch "L" on the set up data card.

PLUS FEATURES OF THE MODEL 88 TUBE TESTER

To perform a complete high sensitivity interelement short test or for determining where the short exists:

1. After tube is thoroughly heated and tested for merit and GCT, hold the FUNCTION switch forward in GCT and Shorts positions.
2. Rotate Switch "R" through all positions A to H and watch meter. On a single purpose tube, the pointer should remain in the good area to the left in all positions except ONE, the cathode position. Readings in the "red" area in excess of one mean that a short is present and associated with the pin selected by Switch "R" in this position. Consult chart showing electrical detail of Switch "R".
3. A common dual tube such as the 12AU7 has one cathode for each section. Two set-up entries are shown. The meter will read in the "red" area in two positions, namely the F and G positions.

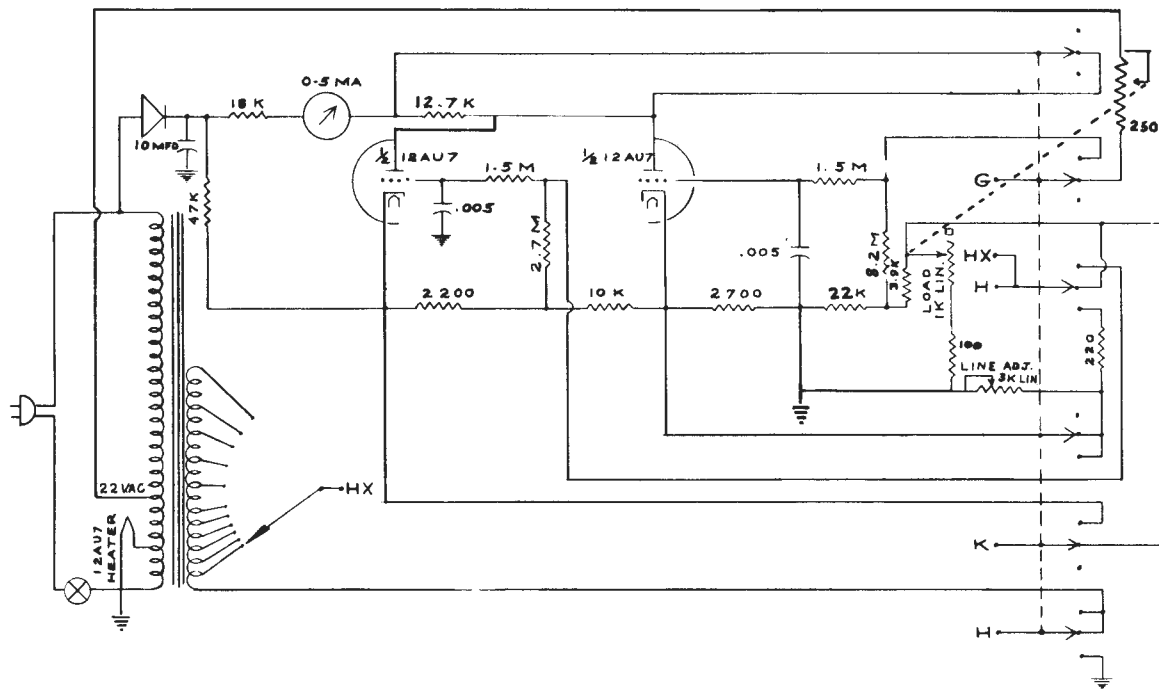
CARD 14

4. If an asterisk appears opposite the tube set-up, this means that an inter-connection exists in the tube which cannot be isolated with lever switch "L". Such interconnections will indicate the same as a short between these pins and cause the meter to read in the red. Consult the tube manual if necessary.

HOW TO PERFORM THE "OPEN" ELEMENT AND ELEMENT IDENTIFICATION TEST

1. Set up the tester controls as usual.
2. After the tube is thoroughly heated, turn the LOAD pot to 100. On most types the meter will pin at full scale, depending on the position of switch "R". This is normal and no harm can be done to the meter because its current is limited by tube limiting action in the tester.
3. "Function switch" should be in "TUBE MERIT TEST" position.
4. Rotate switch "R" through all of its positions A to K.
5. All plates and grids will deflect the meter pointer to the right.
6. Cathodes will deflect the meter pointer to the left.
7. Pins with no connections, or interconnected pins that cannot be isolated with switch "L", will cause pointer to remain at center. Such interconnected pins will be indicated by an asterisk in the set-up.
8. The grids or plates nearest to the cathode will produce the greater deflection as the load pot is backed off from 100.

PART #72-488



G.R. PETERSON	11-30-61	SECO MODEL 88 TESTER	NO. 8-A
JWB		SECO MFG. CO. MPLS. MINN.	

ELEC. DETAIL OF SWITCH "R"

SWITCH TUBE R POS TYPE	A GREEN	B ORANGE	C BLUE	D [†] OPENS RED	E [†] OPENS BROWN	F GRAY	G [†] OPENS WHITE	H PURPLE	J YELLOW	K CLEAR	SWITCH R POS TUBE TYPE
7 PIN	1	2		6	7		5	TC			7 PIN
NOVAR	1	7	9	6	2	8	3	TC			NOVAR
10 PIN	1	2	7	6	9	8	3	10			10 PIN
OCTAL	1	2	4	5	8	6	3	TC			OCTAL
COMP.	11	2	3	4	5	6	7	8	9	10	COMP.
NUVIS.	4			2			8	TC			NUVIS.
LOCTAL	3	2		5	7	6	4				LOCTAL
SPEC. 10 PIN				7	1		3	10			SPEC 10 PIN
SPEC. NOVAR				5	9		7	TC			SPEC NOVAR
SPEC. 7 PIN		2		4	6		3	TC			SPEC 7 PIN
TUBE TYPE SWITCH R POS	A	B	C	D	E	F	G	H	J	K	TUBE TYPE SWITCH POS R

CARD 15

† (X OPENS ALL EXCEPT OCTAL)

PART #72-488

DETAIL OF LEVER SWITCH "L"
MODEL 88 SECO TUBE TESTER

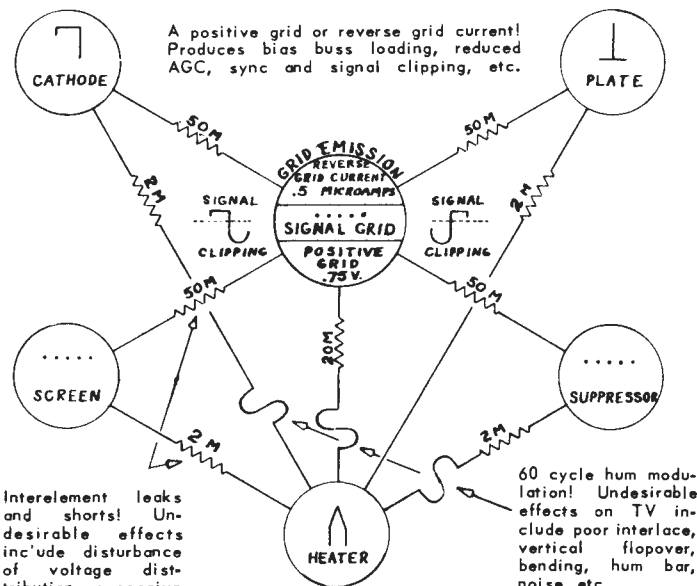
POSITION OF SWITCH "L"	9 PIN (4 & 5 HTRS.)	7 PIN (3 & 4 HTRS)	OCTAL	LOCTAL	9 PIN SPEC SOCKET
NORMAL	All socket pins except htrs. connected to circuit thru ROTARY switch "R".	All socket pins except htrs. in circuit thru switch "R".	Pins 7 & 8 are heater pins. Rest of pins in circuit thru switch "R".	Pins 1 & 8 are heater pins. Rest of pins in circuit thru switch "R".	This socket wired for 1X2 etc. Also tests 12B4 & simil. Set LEVER SW. "L" as shown in set-up chart.
X	All pins in (same as above) except #9 is out of circuit.	All pins in the circuit except #7.	Pins 2 & 7 are the heaters. The rest of pins in circuit.		Pin #1 disconnected.
Y	All pins in the circuit except #6.	All pins in the circuit except #6.	Pins 2 & 8 are the heater pins for 5Y4 etc. Pin #5 open.		Pin #7 disconnected.
Z	All pins in the circuit except #3.	All pins in the circuit except #5.	Pins 2 & 7 are heater pins. #3 is out of circuit.	Pins 1 & 8 are heaters. Pin #4 is out of circuit.	Pin #3 disconnected.

All modern TV and radio heater type tubes (including rectifiers) that have the following heater pin combinations may be tested on the Model 88 Seco Tube Tester:

9 PIN	7 PIN	OCTAL	LOCTAL	SOCKET FOR
4-5	3-4	2-7	1-8	1X2
3-4-5	3-4-5	7-8	1-4-8	12B4
4-5-6	3-4-6	2-8		etc.
4-5-9	3-4-7	2-3-7		
		2-7-8		
		2-5-7		

MODEL 88

Grid Circuit & Compound Shorts Test



Interelement leaks and shorts! Undesirable effects include disturbance of voltage distribution, excessive current,

Resistance values between the various elements on the chart indicate the severity of short required to deflect the meter to the question mark on left of meter.

FOREIGN AND INDUSTRIAL TUBE INDEX SET-UP DATA

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
1C1	1	D	100	
	Special Socket			
1C2	1	D	100	
	Special Socket			
1D13	1	B	100	X
	Special Socket			
1F2	1	E	100	
	Special Socket			
1F3	1	E	100	
	Special Socket			
1FD1	1	E	100	
"	"	G	"	
	Special Socket			
1FD9	1	E	100	
"	"	G	"	
	Special Socket			
1P1	3	E	90	
	Special Socket			
1P10	3	G	80	
	Special Socket			
1P11	3	E	80	
	Special Socket			
2C33	2	H	5	X
2D21	6	D	5	
2E26	6	D	10	X
2N-H11	2	A	90	
2N-H12	2	A	90	
3B26	3	H	15	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
3D-HH13	4	B	10	
"	"	C	"	
3M-P26	3	A	10	
3M-R24	4	A	10	
3M-V7	4	A	"	
4M-P2	4	A	10	
4M-P12	4	A	10	
4M-P26	4	A	20	
4R-HH2	4	B	15	
"	"	C	"	
4R-HH8	4	B	15	
"	"	C	"	
5M-HH3	5	D	10	
"	"	G	"	
5M-K9	5	A	20	X
5R-DDH1	5	A	35	
"	"	D	"	
5R-HP1	5	B	20	
"	"	E	"	
5R-HR1	5	B	20	
"	"	E	"	
6B-B14	6	E	10	
	Magnoval 88A Only			
6D2	6	B	10	
"	"	E	"	
6E8	6	D	25	X
6EM7	6	A	25	
"	"	C	50	
6F12	6	A	10	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6F18	6	B	15	Z
6G-B3A	6	D	5	X
6G-K17	6	D	5	
6H8	6	H	40	X
"	"	C	"	"
"	"	D	"	"
6H-B25	6	E	10	
	Magnoval 88A Only			
6L12	6	B	25	
"	"	C	"	
6L34	6	A	25	Y
6M-HH3	6	D	10	
"	"	G	"	
6M-P20	6	A	10	
6P9	6	A	15	X
6P15	6	E	10	
	Special Socket			
6R-HH2	6	B	15	
"	"	C	"	
6R-HH8	6	B	15	
"	"	C	"	
6R-K19	6	B	10	X
6R-P22	6	B	20	X
7D9	6	A	10	
7D10	6	B	15	
7D11	7	B	10	
"	"	D	"	
7M-P18	7	A	35	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
8D3	6	A	10	
8D4	6	H	15	X
8D5	6	B	20	
8D7	6	H	20	
8R-LP1	8	A	35	
"	"	G	10	
9D6	6	A	15	
9M-HH3	9	D	10	
"	"	G	"	
9M-P12	9	A	30	
9R-AL1	9	B	20	Z
"	"	C	60	"
9R-HR2	9	B	20	
"	"	E	"	
9R-MR2	9	B	20	
"	"	E	"	
12G-B3	12	D	5	X
12G-B6	12	D	10	X
12G-B7	12	D	10	X
12G-K17	12	D	5	
12H-B25	12	E	10	
	Magnoval 88A Only			
12R-LL5	12	B	35	
"	"	C	"	
13D2	6	A	35	
"	"	C	"	
13D3	12	B	20	X
"	"	C	"	"
17B-B14	17	E	10	
	Magnoval 88A Only			

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
17N8	17	B	100	
"	"	C	"	
"	"	F	"	
17R-HH2	17	B	15	
"	"	C	"	
17R-K19	12	B	10	X
19D8	19	B	15	
"	"	E	"	
19M-R10	19	A	25	
19R-P11	19	A	10	X
19V3	19	E	10	
25B-B14	25	E	10	
Magnoval 88A Only				
25M-P20	25	A	10	
30C1	8	B	10	
"	"	E	"	
30C1	8	B	10	
"	"	E	"	
30F5	7	B	10	
30L1	7	B	25	
"	"	D	"	
32A8	32	A	25	
"	"	G	10	
63T1	6	B	15	
"	"	E	"	
64SPT	6	B	20	Z
66KU	6	B	50	
"	"	D	"	
67PT	6	D	15	
141TH	12	D	30	
"	"	G	90	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
171DDP	17	B	40	
"	"	C	100	
"	"	F	"	
451PT	45	F	15	
A863	6	H	35	X
B36	12	A	35	
"	"	C	"	
B65	6	A	35	
"	"	C	"	
B152	12	B	10	X
"	"	C	"	"
B309	12	B	10	X
"	"	C	"	"
B319	7	B	25	
"	"	D	"	
B329	12	B	20	X
"	"	C	"	"
B339	12	B	20	X
"	"	C	"	"
B719	6	B	20	
"	"	C	"	
B739	12	B	10	X
"	"	C	"	"
B749	12	B	20	X
"	"	C	"	"
B759	12	B	20	X
"	"	C	"	"
BF61	6	D	15	
BPMO4	6	A	35	X
D2M9	6	B	10	
"	"	E	"	
D3A	6	B	10	Y

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
D63	6	G	45	X
"	"	D	"	"
D77	6	B	10	
"	"	E	"	
D152	6	B	10	
"	"	E	"	
DA90	1	B	100	X
Special Socket				
DAC32	1	H	100	X
DAF91	1	E	100	
"	"	G	"	
Special Socket				
DAF92	1	E	100	
"	"	D	"	
Special Socket				
DAF96	1	E	100	
"	"	G	"	
Special Socket				
DC70	1	A	20	
DC80	1	A	90	Z
DC90	1	E	100	
Special Socket				
DC96	1	E	100	
Special Socket				
DCC90	3	G	90	Y
DD6	6	B	10	
"	"	E	"	
DD7	6	A	10	
DDR7	6	A	10	
DF33	1	H	100	X
DF91	1	E	100	
Special Socket				

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
DF92	1	E	100	
Special Socket				
DF96	1	E	100	
Special Socket				
DF904	1	E	100	
Special Socket				
DH63	6	H	35	X
"	"	C	100	"
"	"	D	"	"
DH76	12	H	35	X
"	"	C	100	"
"	"	D	"	"
DH77	6	A	35	
"	"	D	100	
"	"	G	"	
DH147	6	H	35	X
"	"	C	100	"
"	"	D	"	"
DH149	6	A	35	
"	"	D	100	
"	"	F	"	
DH719	6	F	40	
"	"	B	15	
"	"	A	"	
DK32	1	D	100	X
DK91	1	D	100	
Special Socket				
DK92	1	D	100	
Special Socket				
DK96	1	D	100	
Special Socket				
DL29	3	F	80	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
DL35	1	D	100	X
DL36	1	D	100	X
DL91	1	G	90	
Special Socket				
DL92	3	G	80	
Special Socket				
DL93	3	D	40	
DL94	3	E	80	
Special Socket				
DL95	3	G	80	
Special Socket				
DL96	3	E	90	
Special Socket				
DM70	1	A	100	
DP61	6	A	10	
DY30	1	H	100	Y
DY80	1	H	100	X
Special Socket				
DY86	1	H	100	X
Special Socket				
DY87	1	H	100	X
Special Socket				
E80CC	12	B	20	X
"	"	C	"	"
E80F	6	E	20	
E80L	6	B	5	
E80T	6	B	30	
E81L	6	B	5	
E83F	6	B	10	
E88C	6	F	100	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
E88CC	6	B	15	
"	"	C	"	
E90CC	6	D	"	
E90F	6	A	10	
E91H	6	A	15	
E92CC	6	D	15	
"	"	G	"	
E180F	6	B	10	Z
E182CC	12	B	10	X
"	"	C	"	"
E188CC	6	B	20	
"	"	C	"	
E280	6	B	20	
E282F	6	B	15	
E288CC	6	B	20	
"	"	C	"	
EAA91	6	B	10	
"	"	E	"	
EAA901	6	B	10	
"	"	E	"	
EABC80	6	F	40	
"	"	B	15	
"	"	A	"	
"	"	D	"	
EAF42	6	A	100	
"	"	D	"	
EB34	6	D	20	X
"	"	G	"	"
EB91	6	B	10	
"	"	E	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
EBC33	6	H	50	X
"	"	C	100	"
"	"	D	"	"
EBC41	6	A	35	
"	"	D	100	
"	"	G	"	
EBC80	6	B	35	
"	"	D	100	
"	"	F	"	
EBC81	6	B	35	
"	"	D	100	
"	"	F	"	
EBC90	6	A	35	
"	"	D	100	
"	"	G	"	
EBC91	6	A	40	
"	"	D	100	
"	"	G	"	
EBF32	6	H	35	X
"	"	D	100	"
"	"	C	"	"
EBF80	6	B	30	
"	"	C	100	
"	"	F	"	
EBF81	6	B	35	
"	"	C	100	
"	"	F	"	
EBF83	6	B	35	
"	"	C	100	
"	"	F	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
EBF89	"	B	25	
"	"	C	100	
"	"	F	"	
Special Socket				
EC80	6	E	25	Y
EC81	6	A	10	
EC86	6	B	15	Y
"	"	F	"	"
EC88	6	B	15	Y
"	"	F	"	"
EC90	6	D	20	
EC91	6	A	15	Y
EC92	6	D	25	
EC93	6	B	10	Y
EC94	6	B	10	Y
EC95	6	B	25	X
EC97	6	B	10	X
ECC32	6	A	35	
"	"	C	35	
ECC33	6	A	20	
"	"	C	"	
ECC34	6	A	20	
"	"	C	"	
ECC35	6	A	25	
"	"	C	"	
ECC40	6	C	20	X
"	"	D	"	"
ECC80	12	B	20	X
"	"	C	"	"
ECC81	12	B	15	X
"	"	C	"	"

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
ECC82	12	B	20	X
"	"	C	"	"
ECC83	12	B	20	X
"	"	C	"	"
ECC84	6	B	10	
"	"	D	"	
ECC85	6	B	20	
"	"	C	"	
ECC86	6	B	20	X
"	"	C	"	"
ECC88	6	B	20	
"	"	C	"	
ECC90	6	D	10	
"	"	G	"	
ECC91	6	D	10	
"	"	G	"	
ECC92	6	D	10	
"	"	G	"	
ECC180	6	B	15	
"	"	C	"	
ECC182	12	B	15	X
"	"	C	"	"
ECC189	6	B	20	
"	"	C	"	
ECC2000	6	G	10	
"	"	F	"	
"	Decal Tube			
ECF80	6	B	20	
"	"	E	"	
ECF82	6	B	10	
"	"	E	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
ECF83	6	B	20	
"	"	E	"	
ECF86	6	B	15	
"	"	D	"	
ECF200	6	G	10	
"	"	H	"	
"	Decal Tube			
ECF201	6	G	10	
"	"	H	"	
"	Decal Tube			
ECH35	6	H	40	X
"	"	D	"	"
ECH80	6	B	20	
"	"	E	"	
ECH81	6	B	15	
"	"	E	"	
ECH83	6	B	15	
"	"	E	"	
ECH84	6	B	10	
"	"	E	"	
ECH200	6	G	10	
"	"	F	"	
"	Decal Tube			
ECL80	6	B	15	
"	"	E	"	
ECL82	6	A	30	
"	"	G	"	
ECL83	6	B	10	
"	"	E	"	
ECL84	6	A	30	
"	"	F	10	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
ECL85	6	B	30	
"	"	E	10	
ED2	6	B	10	
"	"	E	"	
EF37	6	H	35	X
EF39	6	H	75	X
EF41	6	D	25	
EF80	6	B	15	Z
EF81	6	B	25	
EF82	6	C	10	
EF83	6	B	10	
EF85	6	B	10	Z
EF86	6	E	10	
EF89	6	B	15	
EF91	6	A	10	
EF92	6	A	15	
EF93	6	A	10	
EF94	6	A	15	
EF95	6	A	10	
EF96	6	A	10	
EF97	6	A	15	
EF98	6	A	10	
EF180	6	B	15	
EF183	6	B	15	Z
EF184	6	B	15	Z
EF190	6	A	10	
EFL200	6	A	10	
"	"	F	"	
"	Decal Tube			
EH90	6	A	10	
EH91	6	A	15	
EK32	6	D	35	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
EK90	6	A	10	
EL32	6	H	30	X
EL33	6	D	10	X
EL34	6	D	10	X
EL36	6	D	10	X
EL37	6	D	10	X
EL38	6	D	10	X
EL41	6	D	15	
EL70	1	B	10	
EL80	6	B	10	
EL81	6	B	10	
EL83	6	B	10	
EL84	6	E	5	
Special Socket				
EL85	6	B	10	
EL86	6	E	10	
Special Socket				
EL90	6	A	25	X
EL91	6	A	10	
EL95	6	A	25	X
EL180	12	B	50	X
"	"	C	"	"
EL803	6	B	10	
EL821	6	B	15	
EL822	6	B	15	
ELL80	6	B	10	
"	"	D	"	
EM80	6	A	30	
EM81	6	A	30	
EM84	6	A	25	
EM90	6	A	50	
EQ80	6	C	20	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
ET80	6	B	40	
EY80	6	E	10	
EY81	6	D	10	
	Special Socket			
EY83	5	G	10	
	Special Socket			
EY84	6	H	35	
EY86	6	H	100	X
	Special Socket			
EY87	6	H	100	X
	Special Socket			
EY88	6	G	10	
	Special Socket			
EZ35	6	G	25	X
"	"	D	"	"
EZ40	6	B	50	
"	"	D	"	
EZ80	6	A	35	
"	"	C	"	
EZ81	6	A	10	
"	"	C	"	
EZ90	6	A	10	
"	"	D	"	
EZ91	6	A	50	
"	"	D	"	
GZ30	5	C	15	Y
"	"	F	"	"
GZ32	5	C	15	Y
"	"	F	"	"
GZ33	5	C	25	Y
"	"	F	"	"

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
GZ34	5	C	30	Y
"	"	F	"	"
H63	6	H	30	X
HAA91	12	B	10	
"	"	E	"	
HABC80	19	F	40	
"	"	B	15	
"	"	A	"	
"	"	D	"	
HBC90	12	A	35	
"	"	D	100	
"	"	G	"	
HBC91	12	A	40	
"	"	D	100	
"	"	G	"	
HCH81	12	B	30	
"	"	E	"	
HD14	1	H	100	
"	"	D	"	
HF93	12	A	10	
HF94	12	A	10	
HK90	12	A	10	
HL90	19	A	25	X
HL92	50	B	10	Z
HL94	30	B	15	Z
HMO4	6	A	10	
HY90	35	G	10	Y
KL35	1	D	90	X
KT32	25	D	15	X
KT61	6	D	15	X
KT63	6	D	35	X
KT66	6	D	10	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
KT71	50	D	15	X
KT88	6	D	10	X
KTW61	6	H	35	X
KTW63	6	H	75	X
KTZ63	6	H	35	X
KY77	6	D	10	X
L63	6	D	25	X
L77	6	D	25	Z
LCF80	6	B	10	
"	"	E	20	
LCF200	5	G	10	
"	"	H	"	
"	Decal Tube			
LCF201	5	G	10	
"	"	H	"	
"	Decal Tube			
LCH200	5	G	10	
"	"	F	"	
"	Decal Tube			
LFL200	11	A	10	
"	"	F	"	
"	Decal Tube			
LN152	6	B	15	
"	"	E	"	
LZ319	8	B	20	
"	"	E	"	
LZ329	6	B	20	
"	"	E	"	
M8079	6	B	10	
"	"	E	"	
M8080	6	D	10	
M8081	6	D	10	
"	"	G	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
M8100	6	A	10	
M8136	12	B	20	X
"	12	C	"	"
M8162	12	B	15	X
"	"	C	"	"
M8196	6	A	15	
M8204	6	D	5	
M8212	6	B	10	
"	"	E	"	
N14	1	D	100	X
N17	3	G	80	
	Special Socket			
N18	3	G	80	
	Special Socket			
N19	3	E	80	
	Special Socket			
N25	3	E	90	
	Special Socket			
N77	6	B	10	
"	"	E	"	
N78	6	A	15	
N119	45	B	15	
N142	45	F	15	
N144	6	A	10	
N147	6	D	15	X
N148	6	D	15	
N150	6	D	15	
N152	21	B	15	
N153	15	B	15	
N309	15	B	15	
N329	15	B	15	
N359	21	B	15	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
N379	15	E	5	
	Special Socket			
N709	6	E	5	
	Special Socket			
N727	6	A	25	X
OBC3	12	B	35	
"	"	C	100	
"	"	D	"	
OM6	6	D	70	X
OSW3111	6	C	45	X
PABC80	9	F	40	
"	"	B	15	
"	"	A	"	
"	"	D	"	
PC900				
PCC84	7	B	25	
"	"	D	"	
PCC85	9	B	25	
"	"	C	"	
PCC88	7	B	10	
"	"	C	"	
PCC89	7	B	10	
"	"	D	"	
PCC189	7	B	15	
"	"	C	"	
PCF80	9	B	20	
"	"	E	"	
PCF82	9	B	10	
"	"	E	"	
PCF86	7	B	15	
"	"	D	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
PCF200	8	G	10	
"	"	H	"	
"	Decal Tube			
PCF201	8	G	10	
"	"	H	"	
"	Decal Tube			
PCF805	7	C	20	
"	"	E	"	
PCH200	9	G	10	
"	"	F	"	
"	Decal Tube			
PCL81	12	A	20	Z
"	"	E	"	"
PCL82	16	A	20	
"	"	G	"	
PCL84	15	A	15	
"	"	F	"	
PF9	6	H	75	
PFL200	15	A	10	
"	"	F	"	
"	Decal Tube			
PL21	6	D	5	
PL36	25	D	15	
PL81	21	B	15	
PL82	16	B	10	
PL83	15	B	10	
PL84	15	B	10	
PL500	Needs Magnoval Adapter			
PMO4	6	A	10	
PMO5	6	A	10	
PMO7	6	A	10	
PM84	4	A	15	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
PY80	19	E	10	
PY81	17	E	20	
PY82	19	E	10	
PY83	19	E	10	
PY88	30	G	10	
	Special Socket			
QQV02-6	12	A	15	X
"	"	G	"	"
QQV0310	12	A	15	X
"	"	G	"	"
QQV03-12	20	A	10	
QV06-20	6	D	10	X
R19	1	H	100	X
	Special Socket			
R52	5	C	15	Y
"	"	F	"	"
SP6	6	A	10	
T2M05	6	D	10	
"	"	G	"	
U41	1	H	100	Y
U50	5	C	85	Y
"	"	F	"	"
U52	5	C	25	Y
"	"	F	"	"
U70	6	G	25	X
"	"	D	"	"
U76	35	D	10	X
U78	6	A	30	
"	"	D	"	"
U145	25	B	10	
U147	6	G	25	X
"	"	D	"	"

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
U149	6	A	35	
"	"	D	"	
U150	6	B	50	
"	"	D	"	
U152	19	E	10	
U153	17	E	20	
U154	19	E	10	
U192	19	E	10	
U319	19	E	10	
U381	38	E	10	
U707	6	A	30	
"	"	D	"	
U709	6	A	10	
"	"	C	"	
UAA91	19	B	10	
"	"	E	"	
UABC80	28	F	50	
"	"	B	20	
"	"	A	"	
"	"	D	"	
UBC41	12	A	20	
"	"	F	"	
"	"	D	"	
UBC81	14	B	35	
"	"	D	100	
"	"	F	"	
UBF80	17	B	35	
"	"	C	100	
"	"	F	"	
UBF89	19	B	35	
"	"	C	100	
"	"	F	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
UC92	9	D	20	
UCC85	26	B	20	
"	"	C	"	
UCH42	12	G	20	
"	"	D	"	
UCH81	19	B	20	
"	"	E	"	
UCL81	39	A	20	
"	"	E	"	
UCL82	50	A	30	
"	"	G	10	
UF41	12	D	25	
UF80	19	B	15	Z
UF85	19	B	15	Z
UF89	12	B	25	
UL41	45	F	15	
UL84	45	B	15	
UM80	18	A	75	
UU12	6	A	10	
"	"	C	"	
UY41	31	B	20	
UY42	31	B	20	
UY85	38	E	10	
UY89	38	E	10	
V2M70	6	A	30	
"	"	D	"	
V61	6	B	50	
"	"	D	"	
VP6	6	A	15	
VP12D	12	H	75	X
"	"	C	100	"
"	"	D	"	"

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
VQ80	12	A	10	
"	"	E	100	
[W17	1	E	100	
	Special Socket			
[W25	1	E	100	
	Special Socket			
W61	6	H	75	X
W63	6	H	75	X
W76	12	H	75	X
W77	6	A	15	
W149	6	A	35	
"	"	D	"	
W179	6	B	15	Z
W719	6	B	15	Z
WD709	6	C	35	X
"	"	D	"	"
X14	1	D	100	
[X17	1	D	100	
	Special Socket			
[X18	1	D	100	
	Special Socket			
[X20	1	D	100	
	Special Socket			
[X25	1	D	100	
	Special Socket			
X63M	6	D	35	X
X64	6	H	35	X
X77	6	A	10	
"	"	E	100	
X79	6	B	20	
"	"	C	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
X81	6	G	20	
"	"	D	100	
X148	"	G	20	
"	"	D	100	
X155	6	B	10	
"	"	C	"	
X719	6	B	20	
"	"	E	"	
X727	6	A	10	
XC95	2	B	25	X
XC97	2	B	25	X
XCC189	4	B	15	
"	"	C	"	
XCF80	4	B	20	
"	"	E	"	
XCL82	8	A	30	
"	"	G	10	
XCL85	9	B	30	
"	"	E	10	
XF183	3	B	15	Z
XF184	3	B	15	Z
[XL84	8	E	5	
	Special Socket			
[XL86	8	E	5	
	Special Socket			
[XXB	3	D	90	X
"	"	G	"	"
[XY88	16	G	10	
	Special Socket			
YF183	4	B	15	Z
YF184	4	B	15	Z

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
Z14	1	H	100	X
Z63	6	H	35	X
Z77	6	A	10	
Z152	6	B	20	
Z179	6	B	20	
Z719	6	B	20	
Z729	6	B	10	
"	"	C	"	
[ZD17	1	E	100	
"	"	G	"	
	Special Socket			
[ZD25	1	E	100	
"	"	G	"	
	Special Socket			
ZD152	6	B	25	
"	"	C	100	
"	"	F	"	
401	6	A	10	
403B	6	A	10	X
408A	20	A	10	X
502	6	G	5	X
717	6	C	50	X
731	6	A	15	
884	6	G	35	X
FM1000	6	B	20	
1201	6	A	50	Y
1203	6	G	75	
1206	6	G	50	
"	"	F	"	
1216	6	D	30	
"	"	G	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
1217	6	A	30	
1223	6	H	75	X
1225	6	H	50	X
1231	6	D	10	
1232	6	D	15	
1273	6	D	20	
1274	6	G	30	X
"	"	D	"	
1280	6	D	25	
1282	6	F	15	
1284	12	D	25	
1291	1	A	90	Z
"	"	D	"	"
1293	1	D	100	
1294	1	G	100	
1299	3	F	80	X
1381	6	A	10	
1611	6	D	10	X
1612	6	H	30	X
1613	6	D	15	X
1614	6	D	10	X
1619	2	D	15	X
1620	6	H	75	X
1621	6	D	20	X
1622	6	D	10	X
1626	12	D	20	X
1631	12	D	10	X
1632	12	D	15	X
1633	25	A	25	
"	"	C	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
1634	12	G	50	
"	"	C	"	
1635	6	C	35	X
"	"	D	"	"
1638	6	D	25	
"	"	G	"	
1649	6	C	15	X
1654	1	H	100	
Special Socket				
1655	6	G	20	
"	"	C	"	
1657	6	G	10	X
1662	3	H	100	X
1664	12	H	25	X
"	"	C	100	"
"	"	D	"	"
1665	6	G	10	X
1851	6	C	10	X
1852	6	C	10	X
1853	6	C	10	X
1999	1	D	90	X
2050	6	G	5	X
2051	6	G	5	X
3223	6	A	35	
"	"	C	"	
5590	6	A	10	
5591	6	A	10	
5610	6	D	10	
5654	6	A	10	
5656	6	B	10	
"	"	G	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
5659	12	D	10	X
5660	12	H	75	X
"	"	C	100	"
"	"	D	"	"
5661	12	C	20	X
5662	6	E	15	
5663	6	E	15	
5679	6	A	50	Z
"	"	D	"	"
5686	6	B	5	
5691	6	A	45	
"	"	C	"	
5692	6	A	35	
"	"	C	"	
5693	6	C	35	X
5694	6	C	15	X
"	"	D	"	"
5696	6	A	5	
5702	6	E	20	
5721	12	B	20	X
"	"	C	"	"
5725	6	A	15	
5726	6	B	10	
"	"	E	"	
5727	6	D	5	
5732	6	H	40	X
5749	6	A	10	
5750	6	A	10	
5751	12	B	20	X
"	"	C	"	"

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
5755	12	G	20	X
"	"	D	"	"
5757	6	D	10	
5763	6	F	5	X
5784	6	E	40	
5797	25	A	15	
5812	12	A	25	X
5814	12	B	20	X
"	"	C	"	"
5824	25	D	5	X
5838	12	G	20	X
"	"	D	"	"
5839	25	G	20	X
"	"	D	"	"
5844	6	G	10	
"	"	D	"	
5845	5	A	20	X
"	"	G	"	"
5852	6	G	20	X
"	"	D	"	"
5871	6	D	15	X
5873	6	A	50	
"	"	D	"	
5879	6	A	90	
5881	6	D	10	X
5910	1	E	100	
Special Socket				
5915	6	A	10	
5920	6	G	10	
"	"	D	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
5931	5	C	30	Y
"	"	F	"	"
5932	6	D	10	X
5961	6	D	15	X
5963	12	B	20	X
"	"	C	"	"
5964	6	G	10	
"	"	D	"	
5965	12	B	10	X
"	"	C	"	"
5968	1	B	100	
"	"	E	"	
5969	1	B	100	
"	"	E	"	
5970	1	B	100	
"	"	E	"	
5975	6	G	20	
5992	6	D	15	X
5995	6	A	15	
5998	6	A	15	
"	"	C	"	
6000	25	A	30	X
6004	5	H	20	Y
"	"	H	"	"
6005	6	A	35	X
6006	6	C	20	X
6012	6	D	5	X
6024	6	A	15	
6026	6	C	15	
6028	19	A	10	
6030	3	C	90	Y

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6042	25	A	35	
"	"	C	"	
6045	6	G	10	
"	"	D	"	
6046	25	D	15	X
6057	12	B	20	X
"	"	C	"	"
6058	6	B	10	
"	"	E	"	
6059	6	B	20	
6060	12	B	10	X
"	"	C	"	"
6061	6	E	15	
6062	6	F	15	
6063	6	A	30	
"	"	D	"	
6064	6	A	10	
6065	6	A	10	
6066	6	A	35	
"	"	D	100	
"	"	G	"	
6067	12	B	20	X
"	"	C	"	"
6072	12	B	20	X
"	"	C	"	"
6080	6	A	15	
"	"	C	"	
6082	25	A	15	
"	"	C	"	
6084	6	E	20	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6085	12	B	20	X
"	"	C	"	"
6086	19	B	10	
6087	5	C	85	Y
"	"	F	"	"
6095	6	A	35	X
6096	6	A	10	
6097	6	B	10	
"	"	E	"	
6099	6	G	5	
"	"	D	"	
6100	6	D	10	
6101	6	G	5	
"	"	D	"	
6105	5	C	85	Y
"	"	F	"	"
6106	5	C	85	Y
"	"	F	"	"
6113	6	A	45	
"	"	C	"	
6118	6	H	35	X
"	"	D	100	"
"	"	C	"	"
6125	6	D	15	
6132	6	B	15	
6134	6	C	15	X
6135	6	D	25	
6136	6	A	15	
6137	6	C	45	X
6145	6	D	15	
6146	6	D	10	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6150	6	E	35	
6152	6	G	20	
6156	6	A	20	
6157	6	H	10	
6158	12	B	20	X
"	"	C	"	"
6180	6	A	35	
"	"	C	"	
6186	6	A	10	
6187	6	A	10	
6188	6	A	45	
"	"	C	"	
6189	12	B	20	X
"	"	C	"	"
6197	6	B	10	
6201	12	B	15	X
"	"	C	"	"
6202	6	A	30	
"	"	D	"	
6203	6	A	30	
"	"	D	"	
6211	12	B	20	X
"	"	C	"	"
6215	1	H	100	X
6216	6	B	10	
6218	6	B	30	
6227	6	B	5	
6245	6	E	20	
6252	20	A	10	
6265	5	A	10	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6267	6	E	30	
6287	6	F	10	
6293	6	D	10	X
6305	4	H	75	
6325	6	G	10	
"	"	D	"	
6327	6	D	10	X
6336	6	A	20	
"	"	C	"	
6350	12	G	20	
"	"	F	"	
6360	12	A	15	X
"	"	G	"	"
6373	1	B	90	
6374	6	H	10	
6375	1	A	75	
6394	26	A	20	
"	"	C	"	
6414	12	B	20	X
"	"	C	"	"
6417	12	F	10	
6443	6	H	10	
6463	12	G	10	X
"	"	F	"	"
6485	6	A	10	
6516	6	A	10	
6520	6	A	20	
"	"	C	"	
6525	6	D	30	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6528	6	A	10	
"	"	C	"	
6550	6	D	10	X
6660	6	A	10	
6661	6	A	10	
6662	6	A	15	
6663	6	B	10	
"	"	E	"	
6664	6	D	10	
6669	6	A	30	X
6676	6	A	10	
6677	6	B	10	
6678	6	B	10	
"	"	E	"	
6679	12	B	15	X
"	"	C	"	"
6680	12	B	20	X
"	"	C	"	"
6681	12	B	20	X
"	"	C	"	"
6686	6	B	5	
6687	6	A	15	
6688	6	B	30	Z
6689	6	B	10	
6754	6	A	10	
"	"	E	"	
6760	19	B	10	
6761	6	B	10	
6792	6	D	100	X

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6829	12	B	15	X
"	"	C	"	"
6840	12	F	10	X
"	"	G	"	"
6851	12	B	20	X
"	"	C	"	"
6853	5	C	85	Y
"	"	F	"	"
6870	12	B	10	Y
6883	12	D	10	X
6887	6	B	10	
"	"	E	"	
6888	6	C	10	X
6893	12	D	10	X
6913	12	B	10	X
"	"	C	"	"
6919	6	B	10	
"	"	E	"	
6922	6	B	15	
"	"	C	"	"
6927	6	G	10	
"	"	D	"	
6928	6	A	30	X
6939	12	A	15	X
"	"	G	"	"
6954	6	A	10	
6955	12	B	20	X
"	"	C	"	"

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
6968	6	A	10	
6973	6	D	25	Z
7000	6	H	75	X
7001	6	A	10	X
7025	12	B	25	X
"	"	C	"	"
7027	6	F	10	Y
7032	6	A	10	
7036	6	A	10	
7054	12	B	5	
7055	12	B	10	
"	"	E	"	
7056	12	A	10	
7057	12	B	20	
"	"	C	"	
7058	12	B	20	
"	"	C	"	
7059	12	B	10	
"	"	E	"	
7060	12	B	15	
"	"	F	50	
7061	12	D	20	Z
7062	12	B	20	X
"	"	C	"	"
7083	6	E	20	
7105	12	A	15	
"	"	C	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
7125	6	E	15	
"	"	C	100	
"	"	F	"	
7137	6	B	10	
Merit Test Only - Reads to Left				
7167	13	A	10	X
7184	6	D	10	
7189	6	E	5	
Special Socket				
7199	6	C	5	
"	"	E	"	
7212	6	D	10	X
7227	25	E	10	
7236	6	A	15	
"	"	C	"	
Special Socket				
7239	6	A	10	
7244	6	G	10	
"	"	D	"	
7245	6	B	10	
Merit Test Only - Reads to Left				
7247	12	B	25	X
"	"	C	"	"
7258	13	B	10	
"	"	F	"	
7308	6	B	20	
"	"	C	"	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
7316	12	B	20	X
"	"	C	"	"
7318	12	B	10	X
"	"	C	"	"
7320	6	E	5	
Special Socket				
7355	6	F	15	X
7358	6	D	10	X
7360	6	G	15	
7408	6	D	20	X
7534	6	D	10	X
7543	6	A	15	
7551	13	B	40	
7558	6	B	40	
7581	6	D	15	X
7586	6	A	90	
7587	6	A	90	
7591	6	F	10	X
7643	6	B	10	
"	"	E	"	
7687	6	B	20	
"	"	E	"	
7693	6	A	10	
7695	50	D	10	
7699	6	A	10	X
"	"	G	"	"
7701	13	B	40	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
7716	6	B	10	
"	"	C	"	
7717	6	A	50	
7721	6	B	10	Y
7722	6	B	10	Y
7724	14	F	35	
"	"	B	100	
"	"	D	"	
7728	12	B	20	
"	"	C	"	
7729	12	B	20	
"	"	C	"	
7730	12	B	20	
"	"	C	"	
7731	6	B	50	
"	"	E	"	
7732	6	A	30	
7733	12	B	20	Y
7737	6	B	10	Z
7752	6	A	10	
7754	6	D	15	
7755	6	A	10	X
7763	6	D	20	
7867	6	D	5	
7868	6	D	5	X
7788	6	B	15	
7895	6	A	90	

Tube Type	Fil. Volts	SW "R"	Load	SW "L"
7898	13	B	25	
"	"	C	"	
7983	3	A	10	X
"	"	G	"	"
7984	13	K	0	
8032	12	D	10	
8056	6	A	90	
8077	13	B	10	
8102	6	E	10	
"	"	G	"	
8106	12	C	5	
8113	6	A	10	
8136	6	A	25	
8156	12	K	20	
8233	12	D	35	
8417	6	D	70	X
8425	6	A	50	
8426	12	A	50	
9001	6	A	15	
9002	6	D	10	
9003	6	A	10	
9006	6	A	20	Z
XXD	12	D	25	
"	"	G	"	
XXFM	12	A	20	
"	"	D	100	
"	"	F	"	
XXL	6	D	10	

COLOR PICTURE TUBE INSTRUCTIONS FOR MODEL 88A

16CDP22
17EJP22
17ENP22

19EXP22
19EYP22
19FXP22

21AXP22
21CYP22
21FBP22

21EJP22
21FKP22
21GFP22

25AP22
25BP22
25WP22

<u>Tube Type</u>	<u>Fil. Volts</u>	<u>SW. "R"</u>	<u>Load</u>	
COLOR	6	H	100	RED GUN
CRT	6	J	100	GREEN GUN
	6	K	100	BLUE GUN

- SET UP CONTROLS AS INDICATED
- CONNECT COLOR ADAPTOR TO REGULAR COMPACTRON SOCKET ON TESTER
- CONNECT ADAPTOR TO PICTURE TUBE
- CHECK WITH SAME ROUTINE AS USED FOR REGULAR TUBES

BLACK AND WHITE PICTURE TUBE INSTRUCTIONS MODEL 88 & 88A

PICTURE TUBE TEST:

- Locate the picture tube type on the attached setup charts.
- Choose the appropriate adaptor by comparing to the socket that you remove from the picture tube neck.
- Adaptors are available at your distributors.
- Connect the tester to the picture tube taking precaution not to strain the tube neck.
- Check with same routine as used for regular tubes.

● Set up controls as indicated.

TEST THE FOLLOWING B & W CRT'S

Fil. Volts 6

SW "R" A

Load 100

10AEP4	14CP4	16GP4	17BTP4	17DJP4	19ARP4	20CP4	21CBP4	21DVP4	22DP25	23DAP4	24ATP4
10BP4	14DP4	16HP4	17BUP4	17DKP4	19ASP4	20DP4	21CDP4	21DWP4	23ACP4	23DBP4	24AUP4
10CP4	14EP4	16JP4	17BVP4	17DLP4	19ATP4	20FP4	21CEP4	21EP4	23AHP4	23ENP4	24AWP4
10DP4	14GP4	16KP4	17BWP4	17DQP4	19AUP4	20GP4	21CGP4	21ELP4	23AKP4	23FP4	24AXP4
10FP4	14HP4	16LP4	17BYP4	17DSP4	19AVP4	20HP4	21CHP4	21EMP4	23ALP4	23FBP4	24BP4
10RP4	14KP4	16MP4	17BZP4	17DTP4	19AYP4	20JP4	21CKP4	21ENP4	23AMP4	23GP4	24BAP4
10SP4	14NP4	16QP4	17CP4	17DWP4	19BDP4	20LP4	21CLP4	21EQP4	23ANP4	23JP4	24CP4
12JP4	14QP4	16RP4	17CAP4	17DXP4	19BHP4	20MP4	21CMP4	21ERP4	23ARP4	23KP4	24DB4
12KP4	14RP4	16SP4	17CBP4	17DZP4	19BLP4	21AP4	21CQP4	21ESP4	23ASP4	23MP4	24QP4
12LP4	14SP4	16TP4	17CEP4	17FP4	19BNP4	21AFP4	21CSP4	21EWP4	23AVP4	23NP4	24TP4
12QP4	14UP4	16UP4	17CFP4	17GP4	19BQP4	21ALP4	21CUP4	21EXP4	23AWP4	23RP4	24AVP4
12RP4	14WP4	16VP4	17CGP4	17HP4	19BTP4	21AMP4	21CVP4	21EYP4	23AYP4	23SP4	24XP4
12TP4	14XP4	16WP4	17CKP4	17JP4	19CDP4	21ANP4	21CWP4	21FP4	23BP4	23TP4	24YP4
12UP4	15AP4	16XP4	17CLP4	17KP4	19CGP4	21AQP4	21CXP4	21FAP4	23BCP4	23UP4	24AZP4
12XP4	15CP4	16YP4	17CMP4	17LP4	19CHP4	21ARP4	21CZP4	21KP4	23BGP4	23VP4	27AP4
12YP4	15DP4	16ZP4	17CNP4	17QP4	19CLP4	21ASP4	21DP4	21MP4	23BHP4	23XP4	27EP4
12ZP4	15EP4	17AP4	17CRP4	17RP4	19CMP4	21ATP4	21DAP4	21WP4	23BJP4	23YP4	27GP4
14ACP4	16AP4	17ASP4	17CSP4	17SP4	19DP4	21AUP4	21DEP4	21XP4	23BKP4	23ZP4	27LP4
14AEP4	16ABP4	17ATP4	17CTP4	17TP4	19DQP4	21AVP4	21DFP4	21YP4	23BLP4	24AP4	27MP4
14AJP4	16ACP4	17AVP4	17CUP4	17UP4	19EP4	21AWP4	21DHP4	21ZP4	23BNP4	24ADP4	27NP4
14ARP4	16AEP4	17BP4	17CVP4	17VP4	19FP4	21AYP4	21DJP4	22AP4	23BP4	24AEP4	27RP4
14ASP4	16AFP4	17BJP4	17CWP4	17YP4	19GP4	21BAP4	21DKP4	22CP7	23BRP4	24AHP4	27SP4
14AUP4	16AKP7	17BKP4	17CXP4	19AP4	19JP4	21BCP4	21DLP4	22CP14	23BTP4	24AJP4	27UP4
14AVP4	16AYP4	17BMP4	17CYP4	19ACP4	19QP4	21BDP4	21DMP4	22CP19	23BVP4	24ALP4	27VP4
14AWP4	16CP4	17BNP4	17CZP4	19AFP4	19XP4	21BNP4	21DNP4	22CP25	23CP4	24AMP4	27XP4
14AZP4	16DP4	17BRP4	17DBP4	19AHP4	19YP4	21BSP4	21DQP4	22DP7	23CBP4	24ANP4	27ZP4
14BAP4	16EP4	17BSP4	17DCP4	19AJP4	19ZP4	21BTP4	21DRP4	22DP14	23CQP4	24AQP4	30BP4
14BP4	16FP4		17DHP4	19AQP4	20BP4	21BCP4	21DSP4	22DP19	23DP4	24ASP4	

TEST THESE B & W CRT'S AS FOLLOWS

Tube Type	Fil. Volts	SW "R"	Load
9QP4A	5	A	100
10ADP4	8	A	100
14ATP4	8	A	100
17CDP4	8	A	100

Tube Type	Fil. Volts	SW "R"	Load
17DAP4	2	D	100
17DEP4	2	A	100
17DRP4	2	D	100
19ABP4	2	A	100

Tube Type	Fil. Volts	SW "R"	Load
19AEP4	12	A	100
21EAP4	2	D	100
21EVP4	2	D	100
21FDP4	6	D	100

Tube Type	Fil. Volts	SW "R"	Load
24AVP4	2	D	100
24BEP4	6	D	100
SF - 17	2	D	100
SF - 12A	2	D	100